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AUTHOR Peterson, Richard A.
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ABSTRACT

Recommendations are provided about a new data series that would serve as a measure of the extent and quality of participation of the U.S. population in arts and cultural activities. Eight chapters review and evaluate the state of social statistics and indicators of arts audiences. Chapter 1 defines "indicator," "culture," and "cultural indicator" by showing how these terms have come to be used in government reports and by the academic research community. Economic and social indicators are described in chapter 2. In chapter 3 papers are used to illustrate the several different meanings of the term "culture" as it is currently being used in formulating cultural indicators. Chapters 4, 5, and 6 explore measures of audience participation in arts and cultural activities which use time and money as the criteria. Subjective and preference measures are reviewed in chapter 7. In the concluding chapter, the products of artistic activity, including performances, recitals, paintings, constructions, fabrications, and written works, are considered. (RM)

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ARTS AUDIENCE STATISTICS AND CULTURE INDICATORS: A REVIEW OF COMPLEMENTARY APPROACHES

Richard A. Peterson

July 31, 1980

Prepaired for the Research Division of the National Endowment for the Arts.

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ARTS AUDIENCE STATISTICS AND CULTURE INDICATORS:
A REVIEW OF COMPLEMENTARY APPROACHES

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CHAPTER ONE GENERAL INTRODUCTION

This document has been prepard for the Research Division of the National Endowment for the Arts in responce to a two-fold request: First, to make a review and evaluation of the state of social statistics and indicators of arts audiences, and second, to make recommendations about data series that can be used to measure the extent of participation of the United States population in arts and cultural activities as well as be helpful for making forecasts and projections.

The report on the first part of the task, the review and evaluation, can be found in this eight-chapter monograph. The report of the second part of the task, the recommendations, can be found in a separate document entitled "General and Specific Recommendations."

* * *

This monograph has four related purposes: to trace the development of economic and social indicators, to review the several definitions of "culture" in the indicator context, to show alternative measures of demand for the arts and cultural services, and to review statistical data series that are, or could be, gathered by the Federal Government and by non-government agencies.

To accomplish these tasks, it is necessary to step back several paces from the ultimate concern with the extent and quality of participation of the United States population in arts and cultural activities. Part One of the monograph begins the effort by cutting through the conceptual underbrush that

generally obstructs the view of the field. At the center of the thicket are two thorny words, "culture" and "indicator." Part One of the monograph is devoted to operationally defining "indicator", "culture," and "cultural indicator" by showing how these terms have come to be used in government reports and by the academic research community.

Economic, and socialindicators are described in Chapter Two, showing both the strengths of, and the weaknesses of highly aggregated single measures such as Gross National Product. The chapter reviews the development of social indicators that proliferate because there is no single agreed-upon numeraire comparable to money, which is used as the base in economic indicators. Chapter Three shows the several different meanings of the term culture as it is currently being used in formulating cultural indicators. In addition to American work, papers prepared for UNESCO, the Canadian government, and a Swedish research team are examined to illustrate the different uses of the term culture.

Chapter Four opens Part Two of the monograph by explaining the two quite different sorts of measures that are detailed in the four chapters that follow. Chapter Five explores time measures of audience participation in arts and cultural activities, which use time as the numeraire. Chapter Six discusses measures which use money as the numeraire. Chapter Seven reviews the place of subjective measures, attitudional, and preference measures. Finally, Chapter Eight explores measures of the products of artistic activity (literary and musical

compositions, phonograph recordings, paintings, and the like) which collectively are called 'works.'

* * *

Since Federal statistics are the product of a large number of agencies and a widely diverse set of activities, especially in the major statistical agencies, a report of this type will describe only selected events. Nevertheless, the report is intended to give a general sense of the important developments affecting Federal statistics and to draw attention to individual issues and events which are of future significance.

Additional details on the statistical programs of Federal agencies can be found in three reports. One is entitled, "Developments in the United States Federal Statistical System, 1977-1979." This summary report was prepared for the fourteenth session of the Committee on Improvement of National Statistics (COINS) of the Inter-American Statistical Institute, Caracus, Venezuela, October 23-30, 1979. A second report is entitled "A review of some of the major statistical agencies within the United States Federal statistical system," and appears in the June, 1980 issue of Statistical Reports. The most comprehensive review is provided by A Framework for Planning U.S. Federal Statistics for the 1980's. Copies of these reports can be obtained from the Office of Federal Statistical Policy and Standards, U.S. Department of Commerce, Washington, D.C. 20230.

1.4

The table of Contents of the accompanying "General and Specific Recommendations" is reprinted here to facilitate using the two documents together. For the most part, the general recommendations are drawn from Part One, and the specific recommendations are drawn from Part Two of the monograph.

GENERAL AND SPECIFIC RECOMMENDATIONS

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CHAPTER TWO ECONOMIC AND SOCIAL INDICATORS

The word 'indicator' has a long history. Etimologically, it means something that "points out" (Oxford English Dictionary). In research practice, it has come to mean a measure that shows the presence of something broader and less easily measured. For an excellent discussion of the indicator concept, see De Neufville (1975:Chapter 3).

One indicator of illness is the presence of fever, and the themometer is widely used to measure fever. The thermometer provides a useful indicators in this and many other contexts for three reasons. It is easy and cheap to use, it provides stable quantified information which does not vary as long as environmental conditions do not change, and a reading can be readily interpreted, because the relationship between it and the general condition being indicated is clearly understood.

The quest has been to find indicators of economic and social 'health' that satisfy these three conditions. These efforts are reviewed in this chapter in order to facilitate the search for indicators of culture.

A. ECONOMIC INDICATORS

The age-old attempts to gather and use systematic information to understand the workings of society and to shape government policies accelerated rapidly in the nineteenth century. The governments of France, England, and then Germany lead the way, while efforts in the United States lagged behind

until the second quarter of this century. For a review of these developments see Glass (1973) and De Neufville (1975: Chapter 2).

This century, the amount of available statistics began to proliferate rapidly, and there was a demand for one or at most a few numbers that would accurately reflect the health of the nation.

Three elements came together in the 1930's to make it possible for the United States Government to promulgate 21 offically sanctioned national indicators in 1938: 1. A widely expressed mandate for the Federal Government to actively intervene to provide a New Deal and the consequent call for broad measures of national well being, 2. The accumulation of sufficient descriptive statistics on several hundred measures, and 3. A theory to guide the formulation of a small set of indicators from the mass of statistics (See Tanur, 1972:310-314).

The indicators formulated in 1938. such as gross national product, the consumer price index, and the unemployment rate. have proved so useful that they are reported in the daily press and influence national political debates. While widely discussed, they have been faulted for four sorts of reasons. It is worth reviewing these here, both because they point to the difficulties inherent in global statistical time series data that are aggregated out of many different elements, such as is the case in the formulation of gross national product, and because their shortcomings set the historical context of the clamor for social cultural indicators.

First, the statistics have been faulted for not realistically measuring the underlying concepts. See, for example, Bauer (1966) and Beiderman (1979). Numerous corrections in the data gathering and indicator construction techniques have greatly reduced this problem, but these changes often mean that current figures are not directly comparable to figures for prior years. As a result, the goal of a long time series is sacrificed in order to get more accurate current figures.

Second, the indicators may rise or fall "artifically" because of fluctuations in the composition of the population under study, or in the mix of the components entering the statistical series. The unemployment rate provides an example of the first of these possibilities. The unemployment rate of the 1970's was inflated because of the higher proportion of youth and women in the labor force compared with the 1950's. See Antos (1979) and Cain (1979) on the changing meaning of unemployment rates over time. Ryscavage (1979) provides a parallel analysis of two divergent measures of purchasing power.

The Consumer Price Index (CPI) exemplifies the second sort of artificiality. The CPI reflects the current costs of buying a standard breadbasket of items for the average household, but as the prices of food, energy, and housing shift considerably, people's purchases change so that the "typical bread-basket" does not long remain typical. The strategy for dealing with this problem has been to change the mix of components entering the formulation of the

indicator. Again the goal of a long time series is compromised in order to obtain another goal, more accurate current figures (BLS 1978, Aborn 1980).

Third, the available indicators have been faulted for not reflecting major shifts in the meaning which the measures are supposed to indicate. Again the unemployment measure is a good case in point. A high unemployment rate in the 1920's is said to have had far greater social consequences than a comparably high rate of unemployment in the 1980's, because then the joblessness of an individual more likely meant no income coming to an entire household. Now, with much more frequent multiple earnings in a household, with unemployment compensation payments, and with greater personal savings, the consequences of an individual's unemployment are not so devastating for the household (Cain 1979).

It is possible to compensate for this sort of problem by developing multiple indicators, one for each important sub-population. These may be useful for technical planning purposes, but the proliferation of indicators defeats the quest for a small stable set of measures showing the state of the nation. We will return to this point in Chapter 3 below when discussing strategies of moving from cultural statistics to culture indicators.

The final criticism of the set of indicators promulgated in the 1930's does not concern technical questions of measurement, reliability, or validity. It concerns the view of the nation implicit in the theory underlying

the set of indicators. The publication in 1966 of a set of essays edited by Raymond Bauer and entitled Social Indicators unleashed a salvo of criticisms that said the available indicators gave too great prominence to the state of the economy. As the editors of Toward A Social Report noted in 1969, "... economic indicators have become so much a part of our thinking that we have tended to equate a rising income with national welfare" (HEW 1969: xi). The leaders of this new indicators movement reasoned that to better understand and to focus attention on social problems, there needed to be a well formulated set of social indicators (HEW 1969; De Neufville 1975; Land 1975; Biderman 1979).

Of course the paucity of such social welfare was always concomitant with a rising national income and the other economic indicators. But in the mid-1960's, the rising economic indicators seemed dramatically out of phase with social conditions. Quoting Toward A Social Report again: "it seems paradoxical that the economic indicators are generally registering continued progress--rising income, low unemployment--while the streets and the newspapers are full of evidence of growing discontent--burning and looting in the ghetto, strife on the campuses, crime in the street, alienation and defiance among the young" (HEW 1969: xi).

Attempts to compensate for the deficiencies in the system of economic indicators have led in two quite distinct directions. One line of effort has been to reform the existing system of economic indicators. This involves developing

more accurate measures of existing indicators and also estimating a monetary value for all non-market activities such as unpaid household work. One goal of this activity is to develop a system of national accounts which depict all activities in American society as contributing to a complex system of economic exchange.

The alternative way of dealing with the limitations of the economic indicators has been to move in quite a different direction. This has been to formulate entirely different kinds of indicators, ones which are explicitly social rather than economic.

B. SOCIAL INDICATORS

In 1966 Raymond Bauer brought together a number of essays under the general title Social Indicators, published by the Massachusetts Institute of Technology Press. In his preface to the volume, Bauer noted a clamor for explicitly social, as distinguished from economic indicators, measures that would more accurately reflect the conditions of human life in America today. He saw this social indicator movement as "... a symptom of a widespread revolt against...the economic Philistinism of the present United States Government statistical establishment" (Bauer 1966). The social indicator movement has taken a number of turns in the past 15 years. Numerous conferences have occured around the world, a large periodical literature has developed, theoretical and critical texts proliferate, and national governments, ours included, now regularly publish social indicator reports.

Sheldon and Parke (1975) review these developments. And yet no small set of comprehensive, regularly collected, and widely accepted social indicators, comparable to the set of economic indicators, is yet available.

1. Toward Comprehensive Indicators

A number of authors have analysed the lack or success of the quest for comprehensive social indicators (Van Dusen 1974; Henderson 1974; Land 1975; Horn 1978; C. Taeuber 1978; R. Taeuber 1979). Details of their critiques will be discussed in later chapters as appropriate, but it is useful to briefly review their general comments here in order to orient the quest for indicators of culture.

The search for comprehensive social indicators has met with little success for two reasons. First, there is no large body of time-series data from which to select or construct indicators. The contrast with the situation when economic indicators were being developed in the 1930's is striking. When the 21 indicators were selected in 1938, analysts could select among well over 200 measures, some of which had been collected annually since 1854 (Tanur 1972: 311). Only the decennial Census of population, which might figure in the construction of some social indicators, has been collected for any length of time, and the great explosion of social statistics occurred only in the 1960's.

Lacking a wealth of well established measures to choose from, social indicators were often constructed after consulting panels of experts in the area being measured. Such indicators

chosen on expert advice tended to fail, according to Land (1975) and Bohner (1979), because they reflected the ideological bent of the government in power, or the narrow focus of professionals and interest groups in the area, and so did not accurately reflect changes in national welfare over time.

The second reason for the lack of success in building general social indicators, noted by Land (1975) and Fox (1974) is that there is no generally accepted theory of social value through which the diverse sorts of social goods can be evaluated on a common scale. Economists, to be sure, argue about the weights of components that go into making up indicators such as the gross national product, but there is general agreement to use money as the common means of equating the diverse goods and services. Power, happiness, and beauty may be values with a comparable level of generality as money, but there is as yet no agreed way of measuring them. Without a common numeraire of value, it is impossible to construct the social or cultural equivalent of gross national (economic) product.

2. Better Statistics

While the quest for a small set of comprehensive social indicators has not succeeded, the social indicator movement has had numerous clear and tangible results. Measures are now regularly made on a wide range of social activities. In the long run some may be useful in formulating grand social indicators. But in the short run, they are very useful as well. The social statistics now being regularly collected

facilitate policy formation, planning, and lobbying (hereafter called advocacy) by a diverse range of groups, agencies, and individuals.

Thus the effort to develop social indicators has proved valuable, even though it has not achieved the goals set by the early leaders of the social indicator movement. The situation is much the same in the arts and culture realm discussed in the next chapter. The effort to build reliable indicators focuses attention on two prerequsites of indicators, the need for better statistical time-series, and a more clearly articulated conception of the phenomena being measured.

3.1

CHAPTER THREE: "CULTURE" IN CULTURE INDICATORS

The referent of the term culture is elusive. This tempts writers of all sorts --academics, critics, and government statisticians alike--to define it in ways that fit their particular needs of the moment. At the same time, there have been efforts by Kroeber and Kluckhohn (1952), Munro (1970), Bird (1976) and Peterson (1979), among others, to find some order in the multiple uses of the term. Rather than add yet another definition, this discussion proceeds to trace the use of the term culture by those interested in the development of indicators.

Efforts to develop culture indicators have taken two quite distinct tacks. The first is exemplified by the work in Canada, under the direction of Yvon Ferland of Statistics Canada, and the Framework for Cultural Statistics, which is under development at UNESCO. These efforts are linked with government attempts to develop indicators of economic and social processes.

The second tack has been taken in Sweden by a research group coordinated by Karl Erik Rosengrun of Lund University and exemplified in the U.S. by George Gerbner at the University of Pennsylvania and Philip Stone at Harvard. This tack employs the analysis of cultural products including literature, television, newspapers, song lyrics, etc. to assay changes in norms, values, and belief elements of culture over time.

This "culture products" approach will be discussed later in the chapter as a needed compliment to the "process" approach

taken by agencies of national and international governments. The process approach is discussed first.

A. Process Indicators of Culture

Those who employ the process approach seek measures of the stages of creating, actualizing, archiving, and consuming cultural goods and services. The focus is on measures of supply (artists, arts organizations, culture industries, and the like), and on demand (audiences, purchasers of goods, and the like), rather than on measures of art works or cultural services per se.

In common, those who take the process approach disavow the possibility of formulating a small set of global culture indicators now or in the near future. On this point see UNESCO (1974, 1979), Canada (1976), Ferland (1976), Midzuno (1976), Bohner (1979), Fanchette (1979) and Horn (1979). Indicators cannot be formulated now, they argue, for three reasons: (1) There is no agreed numeraire in terms of which to aggregate factors. (2) There is no clear outside criterion by which to compare and calibrate indicators elements. And, (3) there is no systematically codified body of statistics from which to build indicators.

Instead, they speak of gathering statistics that can eventually be refined into a small set of global indicators. They advocate the development of a system of cultural statistics, asserting that while a long-term goal is indicators, the measures generated can be useful for a number of policy and planning purposes in the short-term as well.

3.3

The process approach to developing culture indicators will be illustrated by examining two examples. These are the program developed in Canada and the framework under review at UNESCO.

1. The Canadian Process Design

The Canadian Federal Government has put into practice a comprehensive plan for gathering cultural statistics. The plan exemplifies the process design by calling for statistics of each stage in the cycle from creation and production, through presentation and distribution, to utilization and conservation.

The Canadian design is represented as Table 3.1 on the following page. Rows of the table represents a major forms of cultural expression, or as they are called in the table, sectors. Creative activity is difficult to divide in this way in terms of any one single coherent aesthetic theory, as generations of work by art historians makes clear (Munro, 1967; 1970). What is more, many creative activities combine different elements. The Canadian practice is to classify forms together according to their shared technical and organizational contingencies. Opera performance, for example, combines many different talents, primarily those connected with music, theater, and dance. In the Canadian scheme it is categorized with theater, according to John Gordon of Statistics Canada, because its organizational and technical contingencies are most like those of other sorts of theater.

3.4

Each column of Table 3.1 represents a stage in the processing of aesthetic activity in each of the various sectors. The text describing the Canadian plan discusses 'creation' and 'production' stages separately, but discusses the other three as they are depicted in Table 3.1 (Canada: 1976).

There is a wide choice among potential sorts of statistics to fill the 65 cells created by the 13 sector by 5 process-stage taxonomy. Because of funding and personnel limitations, this scheme proposed in 1976 has only been partially implemented, according to Yvon Ferland, Assistant Director for Education, Science, and Culture Statistics of Statistics Canada.

The Canadian reports which have been published to date contain primarily data on persons, organizations, and money flows. Persons (whether creators, distributors, or consumers) are enumerated in a number of different ways, including their number by occupation, their income and unemployment rates, their age, sex, ethnicity, province, and country of origin, etc.

'Utilization" can be measured in two quite different ways. One is to obtain sales and other utilization statistics from retail sellers or dispensers, including record stores, theaters, concert halls, libraries, museums, and the like. Only the study of the utilization of libraries describes the utilization of artistice activities in this way.

The other way to obtain utilization statistics is to gather the data directly from users through surveys of the population.

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Table 3.1

Description of Cultures

		CREATION AND PRODUCTION	PRESENTATION AND DISTRIBUTION	CONSERVATION	UTILIZATION
	SECTORS	SUBJECTS	SUBJECTS	SUBJECTS	SUBJECTS
CULTURAL EXPRESSION — in written form	Books	Authors Publishers	Book Stores Other sales outlets (Publishers)	Libraries	Money spent Time spent Interest
	Newspapers	Journalists Publishers	Stands (Publishers)	Libraries	Money spent Time spent Interest & Satisfaction
	Periodicals	Authors Publishers	Stands (Publishers)	Libraries	Money spent Time spent Interest & Satisfaction
in visual form	Plastic Arts	Artists Craftsmen	(Artists) Arts stores	Museums Galleries	Purchases Visits to Museums Satisfaction
	Film	Authors Producers Cinema Actors	Cinema Cultural Centres	Audio-videotheque	Cinema attendance T.V. viewing Satisfaction
	Drama	Authors Actors Theatre Companies	Theatre Companies Cultural Centres Records and tapes	Libraries Audio-videotheque	Money spent Time spent Satisfaction
	Dance and Ballet	Authors Dancers Dance Companies	Ballet Companies Cultural Centres	Audio-videotheque	Money spent Time spent Satisfaction
	Architecture	Architects	. . .	Historical Monuments and sites	Time spent visiting Satisfaction
	Television	T.V. Artists Other Professionals T.V. Stations	T.V. Stations Cables	Audio-videotheque	Equipment Money spent Time spent & Satisfaction
in audio form	Instrumental Music	Composers Instrumentalists Orchestra	Orchestra Concert halls Records and Tapes	Audio-videotheque	Equipment Money spent Time spent & Satisfaction
	Vocal Music	Composers Singers Opera	Singers Concert halls Records and Tapes	Audio-videotheque	Equipment Money spent Time spent & Satisfaction
	Radio	Radio professionals Radio Station	Transmitters Cables	Audio-videotheque	Equipment Money spent & Satisfaction

3.6

National arts participation surveys have been conducted in 1972, 1975, and 1978. The 1978 study focused intensively on the reading habits of adult Canadians. The primary reports of these three surveys have been prepared by the Arts and Cultural Branch of the Research and Statistics Directorate of the Department of the Secretary of State of the Federal Government of Canada under the titles A Leisure Study--Canada 1972, A Leisure Study--Canada 1975, and Leisure Reading Habits--1978.

Most of the questions in these three studies ask respondents to report on the activities in which they have engaged, rather than to ask respondents what they would like to do or what keeps them from participating more actively. The few such questions that have been asked have not been repeated from one survey to the next, so it is impossible to say whether the unmet demand for any artistic activity is increasing or decreasing.

Another survey will be fielded in 1981-82 according to Yvon Ferland. Rather than ask respondents about their arts and cultural activities over the past few months as the other surveys have done, current planning for the next survey calls for a "time-budget study." This is a survey in which respondents are asked to detail their activity for the day preceding the interview. Aggregating such data for the entire population, it is possible to determine how much time is devoted to each major sort of activity. Since the probability that an individual picked at random will have participated in an arts activity in the preceding day is quite low, the time-budget method, used

alone without supplemental information, is a poor means of learning about the details of arts participation or the relationship between participation in one sort of activity and another. The reasons for making this assertion are detailed in Section B of Chapter 5.

2. The UNESCO Design

The proposed UNESCO design is designated the "Framework for Cultural Statistics" (hereafter referred to as FCS). The most recent draft of the FCS can be found in the UNESCO document CES/AC.4/8 entitled "Preliminary Study on the Scope and Coverage for a Framework for Cultural Statistics." The Framework is displayed in tabular form as Table 3.2 on the next two pages. The diagram of the FCS is similar to the Canadian design with rows of 'spheres,' here called 'categories,' cross cut by columns of process-stages which range from 'manufacturing' to 'cultural content of goods and services.'

The FCS is divided into ten culture spheres. Reviewing them will further sensitize the reader to the meaning of "culture" in the context of government work on culture indicators. Taken together, they provide a broad operational definition of culture.

Categories 1-6 have the most in common with the Canadian design just discussed. These six categories are described as follows (UNESCO 1979: 11-12).

Table 3.2

CULTURAL SPHERES Categories	MANUFACTURING, PRODUCTION, CONSTRUCTION, etc.		TRADE AND DISTRIBUTION		SERVICE ACTIVITIES (including government)		ITEMS OF DATA UNDER ISIC - UNITS (establishment, etc.)				
							General data common to all categories				Specific indicators expressed in physical units of measurement and indicators of cultural content of goods and services
	I.S.I.C.	I.C.C.S. (indicative)	I.S.I.C.	I.C.C.S. (indicative)	I.S.I.C.	I.C.C.S. (indicative)	Number of I.S.I.C. statistical units and/or number of reporting units	Employment statistics (classification of I.S.I.C. establishment according to number of employees)	Current economic statistics (→ link to sub. pp. 164-167)		
0 CULTURAL HERITAGE	part of 3699; part of 50 (construction); possibly part of 31;	? ; part 5000.1215; ? ;	(6300 ?)		part of 8330; 9420: Libraries, Museums, Botanical and Zoological gardens; → See also categories 4 and 9 → For the relevant government services see 9100.7112-.7121;	8324.1100; 9420.1111-1119; 9420.1200-1400; 9420.1511-1513; 9420.1900; → Archives must be added;					Library statistics (see Unesco-standards). Museums statistics (see Unesco questionnaires). Archives and Record centres statistics (see Unesco questionnaires). Specific indicators: number of admissions, space location of acquisition, census of monuments and sites, utilization indicators, number of excavations and of preservation operations, etc.
1 PRINTED MATERIAL AND LITERATURE	3420: Printing, publishing, etc.; part of 3411 (newsprint); part of 3419; part of 3529; part of 3811 (printers tools); part of 3824 (machinery); part of 3852; part of 3825 (?); part of 3909;	3420.11-16 (except 3420.16) (other I.C.G.S 3420....); 3411.13-.14, etc.; ? ; 3529.14; ? ; ? ; 3852.31 ; 3824.1312; 3824.14; 3909.2411-.2412;	6100 part 6200 part	6100.20; part of 6100.2519; ? part of 6100.2811; 6200.25; part of 6200.2704;	part of 9415: Authors, journalists; part of 8325 ? (part of 8329 ?); → Relevant government services ?	9415.1100; 8325.1111; (8329.1612 ?); 8329.1711-12; 8329.1500?					Book statistics (see ISIC classification and Unesco questionnaires) Press and periodicals statistics (see Unesco questionnaires) Production of cultural paper, newsprint, printing and writing inks as well as of other equipments used for printing and writing (i.e. typewriters, photocopying and mimeographic machines, etc.). Measures of the printing capacity of a country. → Data on copyrights, royalties, etc.
2 MUSIC	3902: Manufacture of musical instruments; → These categories should be reexamined to include all musical instruments and the related handicrafts, which are specific to different national cultural traditions part of 3212; part of 3420; part of 3811; part of 3832;	3902.11-3902.29; 3420.16 (musical works); 3832.13 (gramophones, sound recorders and reproducers); part of 3832.14; 3832.16 (records and prerecorded tapes)	6100 part 6200 part	part of 6100.2631 (music scores) part of 6100.6453; 6100.6800; part of 6200.4211; 6200.4513; part of 6200.513;	part of 9414 (Record masters) part of 9419: Composers; part of 9512; (9519 ?); part of 8329; → Relevant government services ?	9414.12; 9414.1113; 9414.1311-.1312; part of 9512.1200; part of 9519.19; part of 8329.1500;					Quantitative production of gramophone records, record tapes and cassettes. → Specific indicators of musical content to be developed. Quantitative production of musical instruments → Classification of musical instruments to be developed Quantitative production of electric gramophones, record players of sound recorded and reproducers. Statistics of musical performances, number of admissions, etc. Number and activities of amateur music groups (see I.C.G.S. 9414.1121). → Data on copyrights, royalties, etc.
3 PERFORMING ARTS	part of 3240; part of 3320 ?; part of 3839; part of 50 (construction);	see 3220.2911; part of 3240.1212; ? ; 3839.1819; part of 5000.1215; (see also 3220.2911)	(6200 ?)		part of 8329; part of 9414: Theatrical producers part of 9415: Actors, dancers, etc. → Performing arts specific to different national cultural traditions (including circus) should be identified separately. → Relevant government services?	part of 8329.1500 9414.1111-.1119 (except 9414-1113) etc.; 9414.13-9414.14 9415.1311,-.1314,-.1319; 9415.1400 (?),-.1512, etc. 9490.11 (Dance halls);					Theater statistics (see Unesco questionnaire) → Classification of performing and dramatic arts by type, authors, traditional or modern theatrical expression, folklore and festivals to be developed. Specific indicators: number of admissions, space local of acquisition, number of performances, types of performances, etc. Number of amateur performing and dramatic arts groups.
4 PICTORIAL AND PLASTIC ARTS	→ Art handicrafts can only be determined nationally; it is so suggested to leave upon individual countries to decide on the desirability of including jewellery among the cultural objects. In all cases I.C.G.S classifications will have to distinguish art handicrafts. → This list is only indicative: part of 1301; part of 1302; part of 2919 (pearls and gems) part of 3212; part of 3216; part of 3610; part of 3620; part of 3699 (?); part of 3813; part of 3819 (?); part of 3824 (machinery and equipment); part of 3919; 3901: jewellery, etc.;	part 1301.2100; 1302.2100; 2909.1411-.1412, -.1419; 3212.1112 ?; 3216.1111 ?, -.1131; 3233.199 ?; ? ; 3610.1911 ?; 3620.2212, -.29; 3813.1211 ?; 3909.15; 3909.16, 3909.2416; 3901.11-.19; See also 3220.2911	6100 part 6200 part	?	part of 8329; part of 9415: Painters, sculptors, etc.; part of 9516; part of 9420 → Private, profit making, art galleries should be distinguished from museums and public or educational art galleries classified under cultural heritage; → Relevant government services ?	part of 8329.1500(74,8329-1212 (?); 9415.1200; 9516.1200;					→ All indicators in this category will have to be developed. Statistics of painting, sculpture and other plastic art. Pictorial and plastic art exhibitions (other than those classified under Category 0). Amateur activities in institutions. Statistics of the art handicrafts by type and by artistic or cultural content; indicators of the art handicrafts expressed in physical units.

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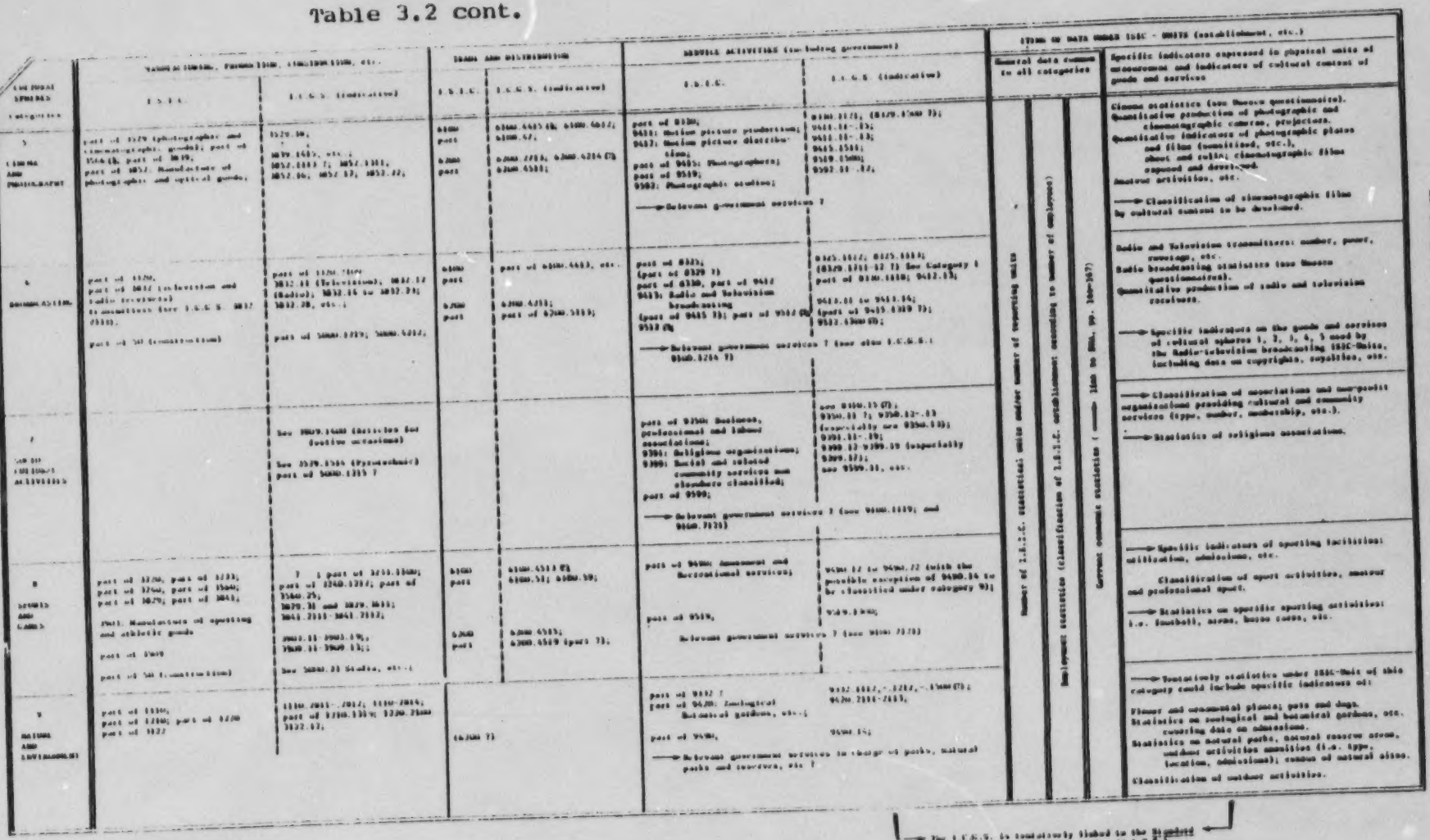
Table 3.2 cont.



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Category 1 (Printed material and literature)

Production, circulation and content of printed material (books, periodicals, newspapers, etc.). This category covers the paper, printing and publishing industries from the level of the semi-finished product to the final consumption of products and services; it includes paper currently qualified as "cultural" and excludes other forms of industrial paper and paper-pulp materials. Included are the creative activities of authors, journalists and graphic art artists, monetary flows and transfers linked with intellectual property of books and other printed materials (e.g. copyrights, royalties, etc.), as well as information on the cultural content of printed material and of the use made of the "printed material" and "literature" by categories of the population.

Category 2 (Music)

Production and diffusion of music, participation of the population in music activities and use of musical amenities. This category includes the production and commercialization of all relevant forms of hardware: musical instruments, gramophones, records, sound recorders and reproducers, cassettes, etc. The category also covers the creative activities of musicians and other professionals as well as amateur performing (printed music should, when possible, be classified here).

Category 3 (Performing arts)

Production and diffusion of performing arts activities, participation of the population in those activities and use of performing art amenities. This category covers all scenic arts (e.g. theatre, dance, shadow theatre, circus and other forms of dramatic arts, which are particular to the different countries). It also includes the construction and upkeep of facilities, the creative activities of artists, amateur performing and participation, as well as the intermediate consumption and activities which are necessary to organize the performances.

Category 4 (Pictorial and plastic arts)

Production and dissemination of the arts of painting, sculpture, art handicrafts and adornments, as well as the use made of these by the population. This category covers the "residual" fine arts and includes production, circulation and use of art objects, antiques, jewellery, ornament, etc., matters necessary for the creation of these art objects. The creative activities of professional and amateur artists are also included.

Category 5 (Cinema and photography)

Production and distribution of cinematographic and photographic material. This category covers all relevant forms of hardware (cameras, photographic apparatus, projectors, etc.), and the building of facilities used for the projection of cinema films. It also covers the activities of professionals and amatuers, intellectual property, as well as information on the use made of these amenities by categories of the population.

Category 6 (Broadcasting)

Production, diffusion and content of radio, television and audiovisual culture. This category includes the production, setting and commercialization of various forms of hardware for broadcasting and reception (e.g. transmitters, networks, receivers, etc.), the activities of professionals employed in broadcasting institutions and activity units; the creative activities of authors, journalists, artists, as well as the various cultural goods and services which is intermediate consumption of the broadcasting industry. Statistics on the contents of broadcasting programmes, their accessibility and information of the use made of these amenities by categories of the population should form an important part of the data classified here.

Any brief statement cannot be complete and there will always be questions about where to place activities. The comments that follow focus on significant inconsistencies that are relevant to work in the U.S. For a start, the literature category traces raw materials back to the pulp-paper industry, but this is not done for any other category. The plastics industry, for example, is not assessed for record or cassette components. Amateur literary writers are not mentioned, but amateurs are mentioned in all other categories except for broadcasting. Ham and citizens band operators are important on this continent at least.

Copyrights and royalties on literature are mentioned but they are not mentioned for any other sort of creative work.

Literary writers are mentioned, but music composers, performing arts writers, and choreographers are ignored.

Only in the case of performing arts are "other forms particular to the country" mentioned. It seems as if this scheme is devoted exclusively to "Western" arts and media plus nationally sanctioned local expressions. What about folk and ethnic arts? In addition to these, the only other NEA-supported discipline which clearly has no place in the FCS is architecture, a surprising omission.

Finally, in the case of broadcasting, but only there and in literature, is an analysis of the content or repertoire of the form called for. If an analysis of media content is worthwhile, why are not content measures a necessary part of statistics in the other categories? We will focus on this question in the next section of the chapter.

Category 0, as the first category is called, treats of "cultural heritage."

> Category 0 (Cultural heritage)
>
> Preservation and development of cultural heritage and of cultural structures. This category covers the construction, preservation and operation of libraries (which are however closely linked to Category 1), archives and records centres, museums and art galleries, historical monuments and sites. Archaeological excavations and some of the activities of specialized historical and artistic professions form an input of this category, which may include activities and expenditures aiming at the preservation of special forms of cultural heritage (such as languages, rituals, festivities, and social activities not elsewhere classified, etc.) and of practices forming part of the officially protected cultural heritage of a nation. Statistics on the use made of the components of the cultural heritage by categories of the population should form an important part of the information classified. (UNESCO 1979:11).

3.13

Certainly the cultural heritage is important in symbolizing the nation and valued elements of the past. But, this seems to be less a category parallel to the others than a stage in the processing of each. The Canadian design seems to handle questions of heritage very well under the heading "conservation." This proposed shift highlights anew the need for the inclusion of architecture or "design arts," as it is currently called at the NEA, within one of the category rows.

Category 7, "socio-cultural activities", though not so readily recognized as culture in the United States context, was included as a section on "participation" in many of the social indicator reports.

> Category 7 (Socio-cultural activities)
>
> Provision, accessibility and use of cultural facilities, organizational and social activities and services, including those of community services, of professional and civic associations. This category covers social ceremonies and practices, activities connected with religious, moral, ethical and philosophical beliefs, participation in professional associations, data on the participation of the population in ritual or custorary social activities (e.g. activities relating to the "life and death cycle", festivities and ceremonies with overt non-recreational purposes n.e.c.). Statistics relating to several of the producers of private non-profit services to households as well as that part of "general expenditure of the public administration of culture" which cannot be allocated to other categories should be classified here. (UNESCO 1979: 12).

This category which links religions and civic ceremonies with professional, philisophical and scholarly activity might best fit a monarchal state with a state religion, but it does not fit the U.S. case at all well. All of the elements called for from political parties and civic ceremonies to humanist

scholars and religious participation can be enumerated; but they do not form a picture of national coherence.

America is a nation of joiners. Americans frequently switch political party, take on new leisure activities, and change church membership. In consequence, these quite different sorts of activities increasingly compete with each other for adherents. The patterns of cultural choice revealed by these changing affiliations are not now well understood. Such patterns of cultural choice can not be clearly portrayed in either the Canadian or FCS schemes because they cut across the categories.

There are two more categories in the FCS. Together they absorb a great part of leisure time and discretionary income.

Category 8 (Sports and games)

> Provision, accessibility and use of "ludic," sporting and related facilities and goods as well as organizational activities and services. This category covers, along with spectator and active participation in sports and games, the production and distribution of toys, sporting apparel, the construction and upkeep of premises (athletic fields, sports halls and gymnasia, swimming pools, playgrounds, etc.) as well as data on the accessibility to and use of those amenities by categories of the population. Where applicable, statistics on betting, gambling, on horse or other races, and on tauromachy, should come under this category, as well as data items on hobbies not elsewhere classified.

Category 9 (Nature and environment)

> Provision, availability and accessibility of outdoor and environmental amenities, as well as of "species, goods, and services" relating to nature and connected with aesthetic and psychological quality of life. This category should be treated with caution and adapted to

> different national contexts, as people and decision-makers are increasingly aware of the close links that exist between a nation's culture and its natural environment. It may include items of data on gardens, aviaries and aquaria, etc.; on activities for the preservation of the fauna, flora and sites; on flowers and plants for bouquets or for ornamental purposes; on pets; on open air recreation; on the use made of the natural amenities by categories of the population. (UNESCO 1979: 13).

The sports and games category isn't always parallel to the process design described for categories 1-6. Insofar as the accent is different, there is more stress here on private sector commercial activity and personal sector amateur activity at the expense of professional activities.

Category 9 on nature and environment is a coherent whole but fits the FCS at two quite different places. On the one hand, parks and forests comprise the facilities for sports and game activities such as hiking, hunting, picnicking, fishing, and skiing. These might best be classed as facilities in category 8. On the other hand, the preservation of the natural environment, complete with its flora and fauna, is conceptualized as a kind of heritage deserving of preservation. These activities are thus parallel to category 0, the preservation of the cultural heritage. Perhaps a modified category on environmental heritage or environmental endowment should be placed next to cultural heritage. Alternatively, both might be conceptualized as the conservation stage of each of the other categories, as suggested above.

The ten FCS categories taken together suggest a meaning for the term culture which clearly includes art as this term is operationalized at the NEA (with the exception of design-architecture) and is clearly coterminious with the idea of

the activities which are ordinarily included in leisure-time surveys of the sort advocated in the second part of this monograph.

The FCS scheme is impressive in the scope of the statistics it calls for, but no nation now collects more than a small part of these. And what is collected tends to cover some sectors much more than others. As Bohner notes, "generally speaking the information systematically collected refers only to 'distributed intellectual culture,' with the result that these data, in most cases, indicate only the cultural consumption of a particular public in a given area. The data existing in most of Europe throw little light on the cultural situation and aspriations of those people, statistically the most numerous, who do not necessarily attend events organized within the specific framework of cultural activities" (1979: 10). Bohner may have parts of popular culture in mind, but the least well represented areas are those which fit neither into the "art" mold nor into the "popular culture industry" mold--the numerous rich and age-old folk art traditions.

The 'utilization' stage of the FCS has been widely discussed, but it has not yet reached the same level of refinement as the other stages in the process design which could more easily employ available statistics. The utilization stage of the FCS receives less than two pages in the report being reviewed here. These call for participation, time-use, and household expenditure data.

3.17

A table does accompany this section and it is reproduced on two pages here as Table 3.3. Its right-hand column calls for sorts of data that are not mentioned in the text. These are "Information on Population Preferences: Ranking of Cultural Activities" and "Satisfaction Indicators of Accessibility and Content." Satisfaction measures are called for in the Canadian design, but mention of measures of content suggest the need for statistics like those which are central to the "culture products" approach to which attention is now turned.

B. Product Indicators

Process measures, parallel to the sorts of statistics for culture described above, have been elaborated in each of the major domains including health, housing, education, and science, so that it is possible to trace the process from money and human capital investments through to the number of clients served, students in classes, or the output of scientific papers. But in each of these fields, it is recognized that such measures do not completely answer the question for which indicators were originally sought--how well the domain is contributing to the general welfare. (de Neufville 1975; Land 1975; Waldavsky 1977; Baer 1977, Johnston 1979; Zuckerman & Miller 1980a). Taking education for example, the question might be--do the contemporary high levels of average schooling mean a better educated population than five or twenty years ago? On this issue see especially Cohen & Garet (1975). The need for product indicators in the health area is discussed by Brook (1973) and by McCaliffe (1978).

Table 3.3

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3.20

In each of these fields, there is a call for a different type of indicator to complement the process measures. The call is for what will be termed here product indicators. These are measures of the content of the elements being processed.

In the arts, for example, product indicators would measure the number of art works created or presented and could be an assessment of the aesthetic competence of the population at a particular point in time. Possible product measures will be elaborated in Chapter 8.) This sort of measure contrasts with the process measures of artists, arts organizations, and audiences discussed in connection with the Canadian and UNESCO designs. Here attention is focused on the one sort of product measure that has been labeled a 'culture indicator' by several of its leading proponents.

1. Product Indicators of Culture

"Culture indicator" is the term that some researchers have given to measures of the content of cultural productions. The group at the Annenberg School of Communication at the University of Pennsylvania led by George Gerbner and the Swedish group led by Karl Erik Rosengren of the University of Lund exemplify this use of the term culture indicator.

In their usage, the sorts of measures described above as "process" measures in the Canadian and UNESCO work are called "economic" and "social" indicators of the arts and cultural area. Gerbner and Rosengren reserve the term "culture indicator"

for measures having to do with art and culture production--that is, in the nomenclature used here--"product" indicators. As Rosengren notes:

> We know quite a lot about the economic development in postwar Sweden, and we know something about social development. But we know very little about the ideological and cultural development. In other words, the economic system has been charted, the social system is being charted, but the symbol system is almost completely unexplored (Rosengren 1976: 2).

The prime concern of the Swedish group has been to bring systematic evidence to bear on questions concerning the stability and change of values of Sweden since the end of World War II. To this end, the group proposed analyzing six topics. They are as follows:

> A. Values and Evaluations in Swedish Domestic Political Debate, 1945-1975
>
> B. The larger Political Situation and Foreign Policy Debate
>
> C. Indicators of the Secularization of the Symbol System
>
> D. Ideology and Rhetoric in Advertisements in Weekly Magazines, 1950-1975
>
> E. The Literary Symbol System, 1953-1975
>
> F. Sex Role Structures of the Swedish Symbol System in the Postwar Period (Rosengren 1976: 13).

Project F has not been implemented (Rosengren 1978: 11). While the Swedish program is quite broad-ranging, only section E on the Literary Symbol System is entirely in the arts area as the term is defined by the United States National Endowment for the Arts.

The Swedish work was begun in 1976 as a four-year research project, with further development of the effort to hinge on the

outcome of the first four years. Preliminary working reports are currently being drafted, so it is not now possible to gauge the success in developing product measures of culture. Rosengren indicates in personal correspondence that the final report of this four-year first-phase of the project are being prepared.

George Gerbner, working at the Annenberg School of Communication of the University of Pennsylvania, has developed much the same definition of culture indicator. Gerbner asserted in 1970 that:

> "Informed public-policy making and valid interpretation of social behavior require systematic indicators of the prevailing climate of the changing symbolic environment. A central aspect of cultural indicators would be the periodic analysis of trends in the composition and structure of message systems cultivating conceptions of life relevant to social and public policy" (Gerbner 1970: 69).

As he explained three years later,

> "The purpose of a system of cultural indicators is to monitor those aspects of our system of generating and using bodies of broadly shared messages that are most relevant to social issues and public policy decisions" (Gerbner 1973).

The fully developed research effort he proposed was quite broad. In practice the research team's work focused primarily through the decade of the 1970's on the content analysis of commercial television programming.

The most widely quoted element of this work is the annual measure of the levels of violence in prime time dramatic shows and cartoons for children. Gerbner's interpretation of this measure has changed over the course of the decade. Developed to be a mirror of mood of the nation year by year, television

violence has recently been interpreted as a measure of the medium's distortion of reality. Irrespective of how one chooses to interpret the measure, however, Gerbner's work, together with that of the Swedish team, shows that it is possible to collect and analyze cultural material in a way that renders a small set of stable statistical time series measures which can be used to indicate the content of material presented to the public.

2. Indicators for Science: A Comparison

Questions of "quality" and "development" in the arts are often taken to hinge on questions of idiosyncratic taste which are always open to debate and are never capable of resolution. It is, therefore, instructive to trace the quest for product indicators in the realm of science where questions of quality are taken to be subject to objective testing and proof.

The contemporary effort to develop science indicators was begun by the National Science Board in 1971. It has been under constant review ever since (Hearings 1976; Elkana et al 1978; Holmfield 1978; GAO 1979; Zuckerman and Miller 1980a). One of the recurrent themes in the debate is the call for product indicators.

The debate over science indicators merits attention here for two reasons. First, science indicators are mandated by Congress to gauge national science policy, which is administered by the National Science Board primarily through the National

Science Foundation--the Government agency after which the National Endowment for the Arts is most closely modeled. Second, review is instructive, because science, like art, is a complex apparatus which continually modifies and builds upon a symbol system so that the production and evaluation of science and art are similar in many ways, if not all. (For a discussion of the parallels and contrasts between science and art see the introductory essay and the articles by Crane, Hagstrom and Useem in Peterson 1976 .)

In 1969, Toward a Social Report asked: "What is the state of American science and how much are we adding to the stock of systematic knowledge?" This call for product measures was followed in the next sentence by the assertion: "Unfortunately, useful measures of scientific productivity do not exist" (72). The paragraphs following use data on the numbers of scientists, the numbers of new PhD's, the numbers of scientific specialities, the expenditures on science, and the money value of technological transfers from the United States to the rest of the world as surrogate process measures for direct measures of the creation and dissemination of scientific knowledge.

The four biennial Science Indicators reports issued to date by the National Science Board have focused almost exclusively on process indicators. The rationale for this stress has never been stated in Science Indicators, but the implicit model comes closest to seeing science as what Kochen (1978) calls a support system for technology. McGinnis puts

this very clearly. The National Science Board's "characterization of science is roughly that of a two-tiered input-output model, output of the first trickling down to become input of the second. Inputs at the first level are 'resources,' money and trained scientists, which are transformed into new knowledge. Scientific knowledge, in turn, is transformed into technological innovation, generating new patents, improving the gross national product and other international balance of trade in products that result from intensive research and development" (1978: 15).

The recent Government Accounting Office (GAO) review of the NSB effort to develop indicators presses the point. It says Science Indicators 1976 "... is too constrained by an input-output framework. In this approach, science and technology are seen as resources which go into, and tangible results that come out of, a 'black box'" (GAO 1979: 19).

While the report does not propose specific changes, its first recommendation for improving science indicators suggests two ways of illuminating what is in the "black box." "Particular attention should be given to developing indicators of the process and substance of research" (GAO 1979: 51). By "process" the report refers, for example, to the ways scientists interact to producing new knowledge. Bibliometric measures are suggested as one means of getting at these processes. The bibliometric method is illustrated in Chapter 8 by Elkana et al (1978). For a quite different approach to understanding the social construction of scientific knowledge, see Mendelsohn

(1977). By "the substance of research" the GAO refers to what has recently been termed "knowledge indicators" by the authors of Toward a Metric of Science.

No one has provided a general definition of "knowledge indicators" but I take them to address three questions concerning the symbol system called science: What is being created, what is being presented, and what is being learned or inculcated? The first focuses on the products of expert scientists. The second and third can refer as well to measures of the general population.

Measures of all three sorts can be found in one form or another. For 'creation' there are measures of the rate of new ideas. Patent applications are one, if an increasingly unreliable, measure (Kevles 1979). Another approach is to use judges to assess yearly the number of significant new ideas. Such a scheme was begun in the late 1920's by William F. Ogburn and his associates (Ogburn 1931). As subjective as such a method may seem, "a spot check, long after the fact, indicates that the Ogburn group did not do too badly in their selections" (Zuckerman and Miller 1980b). With such data in hand, one can more accurately isolate the conditions and funding levels most conducive to creativity.

Measures of the "dissemination" of scientific ideas within the science community are numerous. They tend to use a "diffusion of innovation" model or trace the "invisible colleges" or creator networks (Crane 1972; Elkana et al 1978).

Analysis of the content of scientific knowledge which is disseminated to the general population has hardly begun, but a study made by Jum Nunnaly (1960) for quite different purposes suggests the power of the approach. Using content analysis, he compared the mass-media presentation of beliefs about mental illness with the opinions of experts and the opinions of a sample of the general population. He found that the media representations diverged greatly from expert opinions, while the opinions held by the general public were quite close to those of experts. This study suggests that, far from being a conduit of information, the mass-media were then a source of misinformation. The NSF (1979) has just contracted for a baseline study designed to assess popular attitudes towards science which also contains information on the sources of scientific information. Knowing the specific sources of information, it will be possible to analyze their content to learn what scientific information is being presented.

The final kind of product indicators have to do with what is 'learned.' Such measures are designed to tell what various segments of the population actually know about science. There is a good number of studies of the levels of knowledge about science information in both this country and abroad. Terleckyj (1976) has already formulated a set of indicators of this sort. Beyond measures of science knowledge, it is possible to assess the ability to process and evaluate scientific information. Such measures are being developed with an eye to indicators by the National Science Foundation, the Educational Testing

Service, and the National Assessment Office. With such measures in hand, it would be possible to evaluate a number of assertions about popular science knowledge, for example: has science become a "sacred cow" a body of knowledge which is accepted uncritically on faith.

Since art and culture, like science, involve symbol-processing (Peterson 1976), it may be possible to develop product indicators in these areas that are analogous to the creation, presentation, and inculcation-learning indicators being developed to measure science. It is efforts of this sort to which we now turn.

3. Conclusion

The attempt to develop product indicators of culture is much like the research on knowledge indicators of science just discussed. And yet, while there are at least some science indicators of creation, presentation, and inculcation, the Swedish and American work on culture has stressed just one method, content analysis, as it is applied to works that are presented. The focus has been on the projects of Gerbner and Rosengren because they have explicitly identified their work as aiming to develop culture indicators.

Chapter 8 of Part 2 will illustrate ways of developing measures of creation and inculcation to complement the measures of presentation. Among other things, this discussion will show that the method of content analyzing documentary material has now become much cheaper than it was a decade ago because of advances in computer technology. In addition, it will show

that the three sorts of product indicators can be found not only in the study of printed material and television, but in the study of music and the performing arts as well.

The discussion has come a long way in setting the ground work for the effort to propose a new data series that would serve as a measure of the extent and quality of participation of the U.S. population in arts and cultural activities. The uses of the terms indicator, culture, and culture indicator have been discussed at length in order to establish the framework for the specific methods which are reviewed in the next part of the monograph.

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CHAPTER FOUR THE FOUR ALTERNATIVES

When revised, this brief chapter will introduce Part Two or the monograph. The partial overlap in the definitions of leisure, recreation, and free time with the definition of culture is noted. Arts participation is defined for the purposes of this monograph as participation as an audience, viewer, listener, or any other kind of consumer of art.

Three kinds of process measures of arts participation are identified. They measure respectively time, money, and subjective choices. These are discussed in detail in chapters 5-7. The The product approaches to measuring demand focus on art works per ce. Measures of works created, disseminated, and appreciated are detailed in chapter 8.

CHAPTER FIVE TIME

Measures of how people spend their time has one distinct advantage over other measures of arts consumption such as money and subjective preferences. There are just 24 hours in each day, 168 hours in each week, so time has the same fixed sum for all individuals. This fixed sum facilitates comparisons from year to year, among social groups, and across nations.

Since time cannot really be saved, traded, manufactured, or sold, however, no elaborate system of time accounting analagous to the elaborate system of economic indicators, has been developed. In consequence, there is no well developed and widely used set of numbers to represent how people employ their time outside of paid work hours (Becker 1965, 1975).

Three general approaches can be used in combination to begin to understand how people use their time in arts and culture activities. The most direct is to measure attendance. While attendance figures can be invaluable to an arts organization, aggregation of these data to the national level would require the voluntary cooperation of hundreds or even thousands of organizations in each arts discipline. Only in a few cases, such as symphony music and the mass media, are consumption figures regularly collected. Thus, while attendance figures in some art forms can be very useful in checking measures gathered in other ways, national indicators of arts

consumption cannot, in the forseeable future, be built up from attendance figures. The strengths and weaknesses of attendance measures are further elaborated in Part 3 of this chapter.

An alternative way of gauging the amount of time spent participating as a consumer in arts and related activities is to ask a representative sample of the population how many times they have engaged in selected arts activities. This is the activity survey method. The most rigorous (and most costly) method is to obtain a diary of all activities of a sample of people during a finite period of time. The relative merits of the activity inventory and the time-budget methods will be discussed in turn.

A. The Activity Inventory

Surveys which ask a large random sample of the population about their participation in arts and related leisure activities will be termed activity inventories. Inventories made of respondents in Canada, Australia, and the Southern States, as well as in the United States at large, exemplify the activity inventory approach. (These studies are cited in the text and referenced in the bibliography by the population sampled and the year of the survey rather than by the author of the report and the date of publication.)

Activity inventories have three advantages over attendance statistics. They are: 1. The data are collected ar regular intervals by one agency in a standardized way for the entire

United States rather than being aggregated from hundreds of different organizations. 2. Data can be collected by an agency which has no programmatic interest in making rates look high or low. 3. Numerous questions can be asked concerning the characteristics of participants and non-participants alike which enable the reseacher to better understand the dynamics of arts participation. These three points are further developed by De Neufville (1975: 225 - 39).

1. Standardized Data Collection

As just noted, the first advantage of the inventory method is that surveys ask the same questions of a sample of the entire populations at regular intervals. None of the activity inventories fielded to date have taken full advantage of this strength of the survey method. But they do form the firm foundation for a regular national inventory of arts participation.

The Canadian survey has been fielded at three-year intervals since 1972, but few questions have been repeated from survey to survey without being rewarded. To further complicate over-time comparisons, the "reference period" -- the span of time being asked about -- was changed from three months in 1972 to two months in 1975 and 1978. Between 1975 and 1978 there was a futher change which is important to all those activities which are to some extent seasonal. The reference period in 1975 was the late summer and early fall. The reference period in 1978 was January and February.

5.4

One way of alleviating the problem of seasonality is to make the reference period a full year. The problem with this strategy, as Zuzanek (1979) and others note, is that asking people to report accurately on their activities for a full year is to invite a great deal of guesswork. The way to keep the reference period short, and to cover all seasons of the year is to draw a sample each month.

2. Disinterested Approach

The second criterion of a good survey noted by De Neufville (1975) is that it should be made by an agency that does not have programmatic responsibility in the area under study. This is because agencies with a vested interest might be tempted to slant questions and influence the interpretation of answers (OFPS 1978;1979). Typically, arts advocates would like to show that the demand for the arts is large, growing, and spread through all elements of the population.

The methodology of survey design has become a sophisticated art in recent years, providing means by which such biases can be controlled. Bradburn and Sudman (1979) provide an excellent recent critique of questionnaire design. Briefly, questions should ask about specific art forms, they should have a short reference period, they should ask repondents for the number of events respondents have participated in (avoiding words like "sometimes," "often" and the like), and in so far as possible, they should be placed in a matrix of other questions that do not suggest an "expected" response.

Another problem inherent in the mission interest of survey sponsors is not so easily solved. Past activity inventories have been financed either by government agencies with special mission interests, such as the use of public lands, travel, or the arts. Understandably, the sponsors expect that a good number of the questions will focus on the areas of their prime concern, with few questions dealing with other aspects of the use of leisure time. Thus, these activity inventories cannot be used to get a balanced view of how respondents spend their time. America (1973) again provides a case in point. While there were detailed questions about opera-going and bird-watching, there was not a single question about television, the recreational activity which absorbs the lion's share of leisure time.

3. Contextual Questions

The third advantage of the activity inventory survey over attendance measures is that surveys can elicit information from respondents on a wide range of questions, all of which help in understanding what sorts of people participate in each type of arts activity. These context-defining questions tap the current activities, past experiences, and attitudes of respondents. A number of contextual questions have been asked in earlier surveys. Six sorts of context-defining questions will be noted here.

Multiple Activities: First, by definition, activity inventories ask about participation in a number of activities. So they can be used to relate participation in any one activity with participation in all the others which are asked about in the inventory. For example, the correlation of opera-going with museum attendance, book reading, etc. can be examined. Numberous studies show that the sorts of people who participate in one arts form tend to be like people who participate in the others. They are well educated, urban persons with professional or managerial occupations (Gruenberg 1974; DiMaggio and Useem 1978). And yet, most persons of this sort do not participate in the arts, and those individuals who do, typically engage in some, but not all types of arts activities. These facts lead to a number of questions, but to date, the data in existing activity inventories have not been fully analyzed to learn about the patterns of cultural choice which underly these findings.

The activity inventories vary in both the specificity and range of arts and leisure activities which are covered. Asking about specific activities is important to be sure what activity is being tapped. An item in the South (1978) survey illustrates the problem. Respondents are asked: How many times in the last 12 months have you gone "to rock or country and western, or rhythm and blues concerts?" The audiences for these three sorts of music are quite different. Many rock concert-goers are urban, affluent students, who, judging by the arts participation of their parents (Ennis 1968; DiMaggio and Useem 1980), in a decade will be arts

participants. Country and western concert-goers tend to be older non-urban whites with less education, and rhythm and blues concert-goers are predominantly older working class blacks (America 1973). A positive response to the item, therefore, will be made by persons who are otherwise quite different.

Diverse Activities: If activity-items need to be specific, it is as important to have items sampling a wide range of leisure activities. As noted above, the sponsorship of surveys by mission-oriented agencies may lead to a focus on one sort of aesthetic activity (such as outdoor recreation, or the fine arts) to the exclusion of others. A sampling of questions from the broad range of leisure activities is necessary to understand arts participation in relationship wtih other competitors for scarce leisure time. Of all the activity inventories yet fielded, Australia (1979) makes possible the most complete analysis of arts participation as part of the broader range of leisure activities.

"Demographic" questions, that is, questions about the social characteristics of the respondents, have been included in all these surveys. Sex, age, education, income, occupation, geographic region, and the size of residential community have been asked in all the surveys. Additional demographic variables including race or ethnicity, household composition and religious affiliation have been included in one or more activity inventory under consideration here. Singly and together, they help to isolate the sorts of people who do,

and do not, participate in the various art forms.

Aesthetic Education: The third class of variables are those which focus specifically on the socialization experiences of the respondent, experiences which may help to account for current arts participation. In a review of studies of education, DiMaggio and Useem (1980) find that the educational attainment of parents is the best single predictor of high school students' aesthetic taste. This is presumably because parents' education is a surrogate measure for the general atmosphere of the home. None of the activity inventories, however, asked about parents' education, but America (1973), Canada (1980), and Australia (1979) do ask respondents about the arts interest of their parents. The same three studies ask about aesthetic education in school. Finally, America (1973) and South (1978) ask about arts participation in the teenage years..

While arts appreciation is largely learned, and much of the learning takes place before the age of 20 (DiMaggio and Useem 1980), none of the surveys show substantial correlations between early learning experience--as it has been measured - and current rates of arts participation. None of these surveys have asked about peer influences and school "atmosphere," factors which have been found vital in mediating other aspects of the education experience. It may well be that a survey instrument tailored specifically to probe in depth the early aesthetic experiences and environment will be required to understand the dynamics of the relationship between aesthetic education and current arts participation.

5.9

Barriers to Participation: The fourth class of questions which have been included in some activity inventories probe the barriers to arts participation. Lack of interest, lack of time, and unavailability, are the most often cited barriers, but high cost is not often mentioned. (See America, 1973 and South, 1978.) There are numerous anomalies in these data. For example, respondents in the South (1978) study living in cities of over one-half million in population, cite unavailability, when activities are, in fact, available, and the respondents want to increase their activity. Are the respondents ill-informed, do they mean they can't get to the events, etc.? Answers to such questions must await surveys made at the community level and tailored to exploring the dynamics of perceived barriers to arts participation in relationship to the known availability of activities. While a specially designed survey is necessary to understand the dynamics of perceived barriers, it still may be useful to include a general barrier question in inventory surveys, because the relative importance of the various barriers may shift systematically over time (G. Peterson 1979).

Marketing Activities: A fifth kind of question sometimes included in activity inventories has to do with the advertising of arts events. America (1973) and Australia (1979) have asked how respondents learn about events, what factors they take into consideration in deciding to go, and whose opinion, whether friends or critics, they consult. Such marketing questions may provide valuable information, but they are not

a necessary element of activity inventories, whose primary purpose is establishing indicators of arts participation. What is more, marketing questions can be more effective if tailored to the needs of the particular arts activity at the community level.

Government Arts Support: The final kind of question found in more than one activity inventory probes attitudes towards, and knowledge about, government support for the arts, including aesthetic education. The answers to such questions asked at regular intervals, give a picture of the changing popular support for spending government money on the arts and for spending on the arts relative to other sectors of support such as health, housing, defense, welfare, public safety, and the like. (See particularly, Australia, 1979.) Such questions deserve a place in activity inventories insofar as they provide a gross indicator of support for government spending on the arts.

B. The Time-Budget

The most rigorous measure of leisure-time use is the diary method. Most often individuals are asked about activities of the previous day by recounting what they did from the time they woke until they went to sleep. This method virtually eliminates the problem of recall, makes it possible to accurately compute how much time is spent on each activity, and allows the analysis of how activities are temporally patterned with each other. Diary studies also

gather a good deal of demographic and contextual information from respondents, so it is possible to link activities reported in the diary to a host of other behavioral and attitudinal variables. In 1968, a study of this sort was made of several population segments in the Washington, D.C. standard metropolitan statistical area (Chapin, 1974).

A major multi-national diary survey was made in 1965-66 (Szalzi, 1972). A second national study was made in the United States in 1975-76 (Robinson, 1977). The trade-off for the rich data on time use is having a relatively small sample of cases because this sort of survey is very expensive. In the 1965-66 study there were 1,244 adult respondents and in the 1975-76 study there were approximately 1,500 households. The Institute for Social Research of the University of Michigan plans to field another national time-budget survey in 1981 with a basic sample of 2,300 households.

Samples of this size are sufficient to make accurate estimates of the amount of time the average American spends on such activities as work, sleep, and leisure in general because most people are regularly engaged in them. But it is not very useful to use this method to measure the participation in arts activities. Not much of policy relevance can be learned from the finding that the <u>average</u> American 1975-76 was spending two minutes at a museum of any sort, 5.7 minutes at a theater, opera, or music concert of any sort, and 4 minutes playing a musical instrument or singing per week (Robinson, 1977). This is because such

estimates are averaged from the diaries of a few people who spend a great deal more time and a large number of people who spend no time at all. This being the case, and given the small samples, the figures could double or triple and not be reliably greater than these estimates (Berelson, 1964).

The average American in 1975-76 spent 662.6 minutes per week watching television. This puts TV viewing only below sleep and work among all activities. It is the only arts and leisure activity which takes enough time of enough people to be reliable measured using the diary method as currently employed.

It would be possible to increase the reliability by increasing the sample, but this is not practical because it would be necessary to increase the sample at least twenty-fold to insure accurate estimates for specific sorts of arts activities. The cost of such a venture is prohibitively high. Thus, by itself, the national sample time-budget surveys made to date are of no direct use in building culture indicators, except insofar as they provide information which supplements data collected in other ways.

A time diary study can be designed to link directly with the sort of activity inventory discussed above. While gathering the diary data, there is time to interview the respondent further, and some of this time could be used to ask the set of arts and leisure questions used in the activity inventory survey described above. With these data in hand, it would be possible to learn a great deal more about patterns

of artistic consumption than could be learned from either of the surveys separately. A number of different sorts of questions can be asked of the linked data sets. For example, it would be possible to learn about the sorts of leisure activities engaged in by people of different patterns of time use. Conversely, it would be possible to plot the patterns of time allocation made by the sorts of people engaged in each specific arts activity.

C. Attendance

The direct way of measuring participation in arts activities is to count attendances. Such figures can be of great use to organizations for planning and policy purposes. But it is very difficult to keep accurate counts in many art forms. Symphony concerts, dance, art museums, media arts, and the organized sports provide examples of the consequences of using attendance figures to measure aggregate participation.

Attendance data may be useful to an individual organization. When aggregated, however, attendance figures from many organizations can be misleading as a measure of public participation for a particular geographic area or artistic discipline. Attendance figures are usually available for only a part of the organizations in a given location. In many instances only the largest, best established and well managed organizations will have attendance statistics, but a substantial proportion of the smaller organizations do not have similar data. The

organizations that lack attendance figures can account for an appreciable proportion of all public participation and be very useful indicators of evolving trends.

Furthermore, there is often a very substantisl variation in methods of collecting and reporting attendance data, so it is impossible to determine the composite figures' exact meaning or significance. Some organizations report exact audience counts, others report number of tickets sold (which may be higher or lower than the number attending), and still others report estimates.

Even if attendance data were technically flawless, they would still be of limited value as a measure of public participation in the arts. Since a single individual may participate in an organization's activities many times and be counted as an attendance each time, attendance figures can grossly overstate the number of participating individuals. In short, attendance figures cannot indicate what proportion of the population participates in the arts, how often people participate, to what extent the several arts have common or discrete audiences, and any number of other questions about the arts audience.

1. Getting Complete Figures

The quest for accurate figures of symphony orchestra attendance is a case in point. As part of its annual survey, the American Symphony Orchestra League (ASOL) asks each of its member orchestras for attendance figures. Since a ticket

for a particular seat is required for most concerts, a head count would seem to be a straight-forward matter, but it is not. The explanatory guidelines which accompany the survey to orchestras contains two and one-half pages of instructions to specify which attendances apply and which do not. After all that, the instructions concede: "An estimate of the attendance is sufficient if the gate count was not taken."

The ASOL instructions are quite explicit, but two different measures are commonly confused in such "attendance" figures. Are they the total number of tickets distributed, or a head count of persons at a presentation? They may not be the same number. In foul weather, or when the venue is unpopular, ticket-holders may not attend, so that attendance is below ticket dispersements. But, the opposite can happen as well. An increasing number of arts organizations provide the opportunity for ticket-holders to return tickets before the performance to be resold. In this way, for example, the Metropolitan Opera Company of New York has reported "attendance" slightly in excess of 100% on numerous occasions (Martorella, 1974).

Dance provides a different set of problems. Ironically, these derive from the rapid expansion and aesthetic innovativeness of the art form. And, as Norma Munn of the Association has noted in conversation, approximately 70% of all dance performances are performed on tour. The dance companies are paid a flat fee and so they do not presently have an incentive to

learn exactly how many people attend their performances. These problems will be overcome as the rules for inclusion in the professional dance field are clarified, and a standardized system for reporting attendance is developed.

The problems of counting attendance are less easily overcome in those situations where tickets to seats are not required. Museums provide a case in point. A 1974 survey of 1,821 museums conducted for the National Endowment for the Arts found that "only about 30% of museums were able to base their responses on actual counts rather than on estimates" of attendance (NEA, 1975: 127). Even counts may be quite inaccurate. In conversation off the record the assistant director of a small art museum noted that he regularly accounts for half a dozen "attendances" a day as he walks through the museum's attendance-counting device in the course of a normal day's work.

The media arts present a distinct opportunity for collecting attendance--in this case, listener/viewer statistics. In a sense, the regular television and radio program rating studies, made by Nielson and Arbitron respectively, produce attendance figures because they indicate how many households are "attending to" one particular TV and radio program or another. Television ratings are gathered by the Hielson Company on a program-by-program basis for each broadcasting station. So that it is possible to learn the viewership for each type of arts programming in each region of the nation or size of city. Such statistics have been regularly collected and

analyzed by the research division of the Public Broadcasting Service (PBS) since October 1976.

2. Attendance vs. Attender

The discussion so far has focused on the difficulty of obtaining accurate attendance figures from the hundreds or thousands of individual organizations in each of the arts forms. Even if accurate figures were available, attendance figures would be of limited utility for several reasons. First, "attendance" is not "attender" because the same person may go numerous times. Museums USA found 308,205,000 attendances at museums of all types--including botanical gardens and zoos during 1974. This means that on the average every person in the U.S. attended 1.5 times (NEA 1975: 130). But there is no way of using these figures to learn the number of attenders or the number of frequent versus infrequent attenders.

The second problem with attendance data is that it says nothing about the social composition of the audience. To what extent are they old--young, male--female, black--white, wealthy--poor, urban--suburban--small town people, etc.? Answers to these and related questions of interest to planners and policy makers must be sought through other means such as the activity inventories and time-budget measures discussed above, as well as the measures to be described in the next chapter.

Finally, attendance counts give no picture of the non-attender. This is an important limitation because arts planners want to learn about potential audiences in order to

facilitate their attendance. The methods of audience counting discussed in Sections A and B above, and in the next two chapters as well, make possible the analysis of audience composition by providing information on the social and demographic characteristics of both attenders and non-attenders.

Attendance counts should not be ignored, however. Attendance counts such as that now collected by the ASOL and PBS have the advantage of coming from sources which are clearly identified. This sort of information may thus be useful in supplementing the information collected in other ways.

CHAPTER SIX MONEY MEASURES

Money measures have a distinct advantage over audience measures based on time. A great deal of empirical data has been accumulated on money flows over the past 50 years; this information has been developed into an elaborate system of accounts; and several units of the Federal government regularly contribute to these lengthening time series.

Spending by individuals for leisure and the arts accounts for a relatively small but measurable part of the total money flow. In 1978, 63.7% of the Gross National Product of 2.1 trillion dollars went to personal consumption expenditures. Of these 1.3 trillion personal consumption dollars, 6.8% went for the purchase of all leisure and cultural activities as defined by the Survey of Current Business (SI III 1980: Table 11/4).

The Survey of Current Business further details into 14 categories this aggregate expenditure for leisure and cultural activities, which in 1978 amounted to 91.2 billion dollars. The level of aggregation is still too great, however, to show expenditures for most specific leisure activities. For example, one of the categories is "Legitimate theaters and opera and entertainments of non-profit institutions (except athletics)" (SCB 1979: Table 2.6).

The work of developing more useful measures is the subject of this chapter. Three means of obtaining more detailed measures of audience expenditures are discussed. The first

seeks greater specification in the Survey of Current Business for retail sales just mentioned. The second explores the money-budget technique. The final section of the chapter reviews the prospects and pitfalls of using figures aggregated from ticket and retail sales.

A. The Census of Business

One way of obtaining money measures of arts audiences is to aggregate the gross receipts from admissions or services for each of the arts and cultural products and services. The financial reports of small and new arts organizations are often incomplete, and artists often provide their services free, so no money measures can expect to be complete (Netzer, 1978). They can, however, capture the bulk of the major activities. Therefore, a time series based on gross receipts can be used to measure changes in aggregate consumer demand for various arts and cultural services in which organizations, rather than individuals, predominate.

Each year the Bureau of Economic Analysis of the U.S. Department of Commerce publishes a table entitled "Personal Consumption Expenditures by Type of Expenditures" in the July issue of the Survey of Current Business. One section of the table details recreational expenditures into 14 categories. These are depicted in Table 6.1 in the form in which they appear in Social Indicators III (1980). To that table is added the amounts (in millions of dollars) for 1978 from the

6.3

Survey of Current Business (July, 1979: Table 2.6) where the category is called "Recreation" rather than "Leisure and cultural activities." The table depicts the 14 categories together with the explanatory note about what is included. The table also shows what percent the expenditures for leisure and cultural activities are of the Gross National Product, and what part each of the 14 categories is of all leisure and cultural activity expenditures for selected years from 1960 to 1978.

The categories are appropriate for a survey of current business. For example, sheet music sales are grouped with magazine and newspaper sales as printing. Musical instrument sales are grouped with television receiver sales, and phonograph record sales as entertainment durable goods.

Quite a different combination of elements would be appropriate if the goal is indicators of audience demand. Several of the sub-categories in recreation correspond fairly well with arts disciplines. These include legitimate theater and opera. "Entertainments of non-profit institutions" includes symphony concerts and non-profit theaters.

Elements of two other categories besides "Recreation" are also relevant to buidling measures of consumer demand for the arts. The consumption category "Religion and welfare activities" includes museums and libraries. Finally, the category "Other durable household furnishing" includes "art products," which is a combination of visual and craft arts, according to Clint McCulley of the staff of the Survey of Current Business.

6.4

A number of the elements of the recreation category are in part arts expenditures. These categories include books, sheet music, phonograph records, musical instruments, motion pictures, and cable television. From the unpublished Census figures it is possible to estimate the proportion of each of these that is classifiable as art in order to adjust the figures accordingly. Finally, figures from other parts of personal consumption expenditures also should be examined in order to trace arts expenditures relative to expenditures for other sorts of leisure activities.

Thus with some disaggregation, editing, and regrouping, these available data can be used to show the year-to-year growth in expenditures for some specific art and leisure activities, and to show the relative share of the total personal expenditures which go to each.

1. Index Construction

Because of inflation, it is difficult to compare dollar figures from one year with those of another. One standard way of reducing this problem is to adjust figures for inflation so that all dollar amounts are expressed in the dollars of a particular year. But no single inflation adjustment is satisfactory because different sectors of the economy experience quite different rates of inflation which cannot be reflected in a single adjustment factor (Byrnes et al 1979 32).

The other means of compensating for the effect of inflation is to express the figures for each year as a proportion of some

larger total for the year. This is the strategy chosen in Table 11/4 of Social Indicators III (1980), and reproduced here as Table 6.1. The figure for each arts and cultural category is expressed as a percent of the year's "Total expenditure for leisure and cultural activities." But this may not be the best denominator for two reasons.

First, the three largest elements going into the measure are "wheel goods...," "records...," and "non-durable toys...." They are subject to peculiar fluctuations, and since in 1978 they together comprised 50.1 percent of the total, they can greatly influence the index. The two largest elements, "wheel goods..." and "records..." have been subject to more rapid inflation than many of the other elements. Thus the rise since 1965 from 11.17 to 15.97 in "wheel goods..." is in part due to element-specific inflation rather than to increased consumer preference for these goods. The slight drop in "non-durable toys and sports supplies" is the consequence of conflicting components. Purchases of sport supplies have risen rapidly over the period while toy sales have fallen. Toy sales drop not because less is spent on each child, but because there are fewer young children today to spend money on than a decade or two ago, according to McCulley (1980).

The second reason for choosing a different denominator is that the total "Expenditure for leisure and cultural activities" has been growing as a percent of "All personal consumption expenditures"--from 5.5 percent in 1960 to 6.8 percent in 1978. Therefore, a specific type of

expenditure could show no net growth or even a loss as a percent of "Expenditures for leisure and cultural activities," but still grow as a percent of "All personal consumption expenditures." Since the question is the relative place of arts expenditures from year to year in the total expenditures made by individuals, the more appropriate denominator for these measures is "All personal consumption expenditures."

2. Data Sources and Quality

The Survey of Consumer Business figures are garnered from a number of different sources by the Bureau of Economic Activity (BEA) of the U.S. Department of Commerce. The basis reference is the Economic Census which is made every five years. There is a considerable time lag before the detailed figures are published. The 1978 figures reported in Table 6.1, for example, are extrapolated from the 1972 survey. According to a BEA representative (McCulley, 1980), there is not now a detailed manual explaining the means of extrapolating the personal consumption expenditures in non-Census years. An article by Byrne et al (1979) explains how monthly estimates are made for the major categories such as food, housing, durable goods, and the like, but it provides no information on how interim arts expenditures are estimated.

Among the strengths of the gross receipts measures are that they are based on a Census, not a sample, and that the figures can be linked directly to the Gross National Product (GNP) of components of the GNP. It is impossible to partial the figures by any social or demographic variable in order to

learn how the various components of the population contribute to the aggregate consumption figures. This greatly limits the utility of the data for forecasting future trends in expenditures for arts goods and services.

B. The Expenditure Inventory

The Bureau of Labor Statistics of the Department of Labor has recently initiated two continuing surveys of consumer expenditures with the U.S. Census Bureau acting as the data collection agent. One survey asks respondents to recall their expenditures for a three month period. The other survey asks respondents to keep a complete daily list of all expenditures for two week-long periods (Bureau of Labor Statistics, 1978: 14-15).

While the continuing surveys are new, the U.S. Department of Labor made its first national money budget survey of American workers in 1934-35. That survey was initiated to find the typical "bread basket" of purchases by urban workers in order to establish the Consumer Price Index (CPI). There have been substantial changes in what Americans buy and in the way they live in the years since, so similar budget surveys have been made periodically since to update components of the CPI.

The continuing survey has been initiated for several reasons: to avoid the massive start-up costs of the periodic survey; to reduce the time lag in adjustments in the bread-basket of items making the CPI; and to regularly provide information on consumer spending to policy makers both within and outside the government (Bureau of Labor Statistics, 1978).

6.8

The samples for the Continuing Consumer Expenditure Survey (CCES) have been drawn to represent all sorts of households--or as they are called in the survey--Consumer Units (CU). CU refers to all those persons, including some who live away from home, who share income and expenses. The CU may not include all persons living in a household.

In addition to the detailed expenditure data, both elements of the CCES gather a wealth of demographic and socio-economic information on the CU's. Therefore, it will be possible to find the arts and cultural service expenditures by geographic area, city size, age, and the other demographic and social variables. The quarterly and two-week elements of the CCES will be described in turn.

1. The Quarterly Survey

The quarterly element of the CCES was fielded in October 1979. The sample of Consumer Units (CU's) is drawn from sampling units chosen to represent the U.S. population. Six thousand CU's are surveyed each quarter, and each is interviewed four times so that a year's data are collected for each CU. Beginning in the summer of 1981, and quarterly thereafter, expenditure data will be published regularly six to nine months after the reference period.

The survey instrument is quite detailed. It is 103 pages long with a 12 page supplement on credit liability. The questionnaire is divided into 22 sections which are depicted in Table 6.2. Detailed socio-demographic information is contained in Section 1, with further detailed information on

work experience and income presented in Section 22. Expenditures for leisure and recreational goods and services are found in Sections 6-11 and 17-20. Goods and services related to the arts are found in Section 6-8, 17, and 18.

Expenditures for arts goods and services are often lumped with non-arts purchases. While the survey instrument has been finalized, the categories that will be used in coding the data have not yet been established. It may be possible to retain more detail than would be required for the Bureau of Labor Statistics (BLS) purposes. For example, an item on page 81 asks for purchases of "Theater, concert, opera, or other musical series, season tickets." The BLS does not now expect to code these different art and leisure forms separately, but the survey asks "What is the name of the organization mentioned?" So it would be possible to separate theater, opera, classical music, and other season ticket purchases.

Unfortunately, there does not seem to be a comparable way of disaggregating the expenditures for single admissions. All performing arts and some leisure activities are lumped together. The question is as follows: "Have any CU members paid single admissions to recreational or entertainment activities such as movies, plays, operas, or concerts? What was the total expenditure for these activities?"

Many of the other items of interest, such as books, phonograph records and tapes, and household decorations, contain both arts and non-arts components. Given the way the categories have been established, it is not possible to separate the arts purchases from the rest.

It is much the same for expenses for trips. The survey asks only "what was the main purpose of the trip." So it is not possible to recover the information on the numerous trips that combine concert and museum attendance with business, vacation, or visiting relatives. What is more, the art trip is lumped with other activities as "entertainment or sightseeing." If the coding were a bit more refined, and if there were a question about secondary purposes of trips, the information could be much more useful because a good deal of arts activity is enjoyed as part of trips taken primarily for some other reason. A recent survey estimates that 30% of the audience of the New York Broadway theater comes from outside the New York Metropolitan area. (The League, 1980). (An alternative source of information on travel to enjoy arts activities is the 1977 Travel Survey.)

As it is presently formulated, the quarterly interview survey can be used in two ways. First, it can be used to provide expenditure data for several selected art activities, most notably season ticket purchases. Second, it will provide information on the purchases of items such as phonograph records and tapes, trips for entertainment and sightseeing, and the like which contain an arts component. Because most categories combine arts and non-arts elements, the figures from the quarterly interview survey cannot be used without modifications to develop an aggregate indicator of arts expenditures.

2. The Week Diary

The Diary of Daily Expenses element of the Continuing Consumer Expenditure Survey (CCES) was fielded in October 1979. The sample of Consumer Units (CU's) is drawn in the same way as for the quarterly survey. One hundred CU's enter the sample each week and report expenditures for two weeks so there is data on 200 CU's for each week of the year. The sample is not drawn from CU's in the quarterly survey, so it is not possible to place the details of the two-week diary purchases into the context of quarterly and annual expenditures.

Respondents fill out a two-page, five-part form each day. The first three sections deal with food and beverage purchases. Part four includes clothing, shoes, and jewelry. Part five includes all other purchases and expenses. The respondent is asked to write down in detail each item or service purchased, its total cost (excluding sales tax), and whether some or all of it was bought for a person outside the household.

The coding of this information is done by the staff of the Census Bureau following specifications provided by the Bureau of Labor Statistics. Coding has begun, but the categories are undergoing modification as problems and opportunities develop.

No details on the week diary are yet in print, but according to a BLS official, the diary is intended to facilitate fine-tuning the food and clothing components of the Consumer Price Index. Preliminary indications from the field suggest that since the diary form is titled "record of your daily expenses" the more exceptional expenses for consumer durable (such as

washing machines, automobiles, and the like), travel, and investments are not being registered. If this proves to be the case, and if a more complete accounting is not developed, the week diary component of the CCES will be of little value in developing indicators of arts audiences.

C. Ticket Receipts

Aggregate money receipts for ticket sales ia a standard component in measuring the financial status of individual professional arts organizations. Receipts from ticket sales, however, are of limited utility in judging the size of the national arts audience relative to other ways of obtaining this information, for three reasons.

First, receipts for ticket sales cannot easily be equated with the number of attenders because tickets are often sold at a discount from the face price, unsold tickets may be given away, and unused tickets may be contributed to the ticket-holder and resold to another person.

Second, receipts are of limited utility because obtaining accurate national figures depends on the cooperation of dozens or even hundreds of organizations in each discipline of the arts. While artists, galleries, publishers, and performing arts organizations keep accurate figures for tax purposes, no organization or association now aggregates these figures in ways that can form the basis of a statistical time series for arts audiences except for symphony orchestras and branches

of theater. (When the other art forms become as complete and accurate in reporting, it may be practical to measure the dollar demand for the arts through aggregate ticket receipts.)

Third, better information can be more readily obtained from other sources. The data on gross receipts discussed in the first section of this chapter are more comprehensive. The money budget data discussed in the second part of the chapter are more useful because they contain social and demographic information, making it possible to learn about the characteristics of persons who purchase arts goods and services.

Ticket receipts information should not be ignored, however. Information such as that now collected by the American Symphony Orchestra League has the advantage of coming from sources which are clearly defined. The ASOL figures are collected from all major, regional, and metropolitan symphony orchestras. This sort of information may thus be useful in supplementing information collected in other ways.

TABLE 6.1

Table 11/ 4. Personal Consumption Expenditures for Leisure and Cultural Activities, Selected Years, 1960-1978

Item	1960	1965	1970	1975	1978
Gross National Product (GNP) (in billions of constant 1978 dollars)	1,114.7	1,422.8	1,650.6	1,853.1	2,107.6
Personal consumption expenditures (in billions of constant 1978 dollars)	715.7	889.5	1,039.7	1,188.4	1,340.1
Personal consumption expenditures as a percent of GNP	64.2	62.5	63.0	64.1	63.6
Personal consumption expenditures for leisure and cultural activities (in millions of constant 1978 dollars)	39,333	53,569	68,884	80,641	91,244
Expenditures for leisure and cultural activities as a percent of all personal consumption expenditures	5.5	6.0	6.6	6.8	6.8
Total expenditures for leisure and cultural activities (in percent)	100.0	100.0	100.0	100.0	100.0
Nondurable toys and sport supplies	13.9	13.8	13.4	12.9	12.8
Wheel goods, durable toys, sports equipment, boats, pleasure aircraft	11.1	11.1	13.4	14.4	15.9
Commercial participant amusements 1/	6.7	6.5	5.7	5.3	5.0
Spectator sports	2.0	2.6	2.6	2.2	2.0
Books and maps	6.4	6.4	5.7	5.4	5.9
Magazines, newspapers, sheet music	12.1	10.3	9.5	11.3	10.9
Legitimate theaters and opera and entertainments of nonprofit institutions 2/	1.9	1.5	1.4	1.2	1.4
Clubs and fraternal organizations 3/	4.1	3.3	2.9	2.3	2.0
Radio and television receivers, records and musical instruments	16.8	19.5	21.7	22.3	21.4
Radio and television repair	4.3	3.6	2.6	2.1	1.9
Motion picture theaters	5.4	4.1	3.7	3.8	4.7
Flowers, seeds, and potted plants	3.9	4.9	5.2	5.1	5.5
Parimutual net receipts	3.0	3.1	2.8	2.5	2.2
Other 4/	8.4	9.2	9.4	9.0	8.3

Note: These data represent the market value of purchases of goods and services by individual and nonprofit institutions. Detail may not add to total shown because of rounding.

1/ Consists of billiard parlors, bowling alleys, dancing, riding, shooting, skating, and swimming places, amusement devices and parks, golf courses, sightseeing buses and guides, and private flying operations.
2/ Except athletic.
3/ Consists of dues and fees, excluding insurance premiums.
4/ Consists of net receipts of lotteries and expenditures for purchase of pets and pet care services, cable TV, film processing, photographic studios, sporting and recreational camps, and recreation services, not elsewhere classified.

Source: U.S. Bureau of Economic Analysis, The National Income and Product Accounts of the United States, 1929-1974, and Survey of Current Business, July 1976 and 1979.

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TABLE 6.2

PAGE	Section number	Section title	SOCIO-DEMOGRAPHICS	ARTS DATA	LEISURE - RELATED DATA
1	1	HOUSEHOLD RELATED AND CONSUMER UNIT COMPOSITION	1-4,6,8		
9	2	Rented Living Quarters			
11	3	Owned Living Quarters and Other Owned Real Estate			
23	4	Utilities and Fuels			
29	5	Construction, Repairs, Alterations and Maintenance of Owned and Rented Property			
33	6	Appliances, Household Equipment and Other Selected Items		36	35,36,37
39	7	Household Equipment Repairs, Service Contracts and Furniture Repair and Reupholstering		39	39
41	8	Home Furnishings and Related Household Items		41	41
43	9	Clothing and Sewing Materials			43, 46, 47
49	10	Rented and Leased Vehicles			49
51	11	Owned Vehicles			51, 52
59	12	Vehicle Operating Expenses			
63	13	Insurance Other Than Health			
67	14	Hospitalization and Health Insurance			
73	15	Medical and Health Expenditures			
77	16	Educational Expenses			
81	17	Subscriptions, Memberships, Books and Entertainment Expenses		81, 82, 83	81, 82, 83
84	18	Trips and Vacations		84, 85	84, 85
89	19	Miscellaneous Expenses			89, 90
91	20	Expense Patterns for Food, Beverages and Other Selected Items			92
SUPP. 1	21	Credit Liability			
93	22	Work Experience and Income	73,74		

CHAPTER SEVEN SUBJECTIVE MEASURES

Subjective measures are those which ask people what they will do, what they want to do, and why they haven't done these things more often. In addition, subjective measures include questions of opinion or questions of fact which are analyzed as if they were questions of opinion. Finally, subjective measures are those that ask respondents how they feel about the quality of their life. Following a brief introduction, this chapter illustrates each of these sorts of questions as they bear on questions of arts participation.

A. Orientation

Subjective measures are attractive to arts planners, policy makers, and advocates because they point to unmet needs rather than chronicling past participation or money spent. While the time and money measures which are discussed in Chapters 5 and 6 are retrospective, subjective measures, whether they ask about time or money allocations, or ask about feeling states, can be prospective. As such, they are helpful in predicting future demand.

In those situations in which services are readily available to all, past demand is the best predictor of future demand. But the rapid increase in arts participation in recent decades, following the greater availability of arts activities, suggests that there is a large unsated demand for the arts in the United States population (Netzer,

(1978). Subjective measures of demand provide one means of assessing the size and location of unmet demand.

A major limitation of most subjective measures is that to approve of more art and cultural services doesn't "cost" respondents anything. In the words of the old adage, " if wishes were horses, beggars would ride." It is possible, of course, to take the answer to a subjective question such as "Would you like to go to more concerts?" at face value. But it would be very hazardous to found an orchestra, enlarge a concert hall, or extend the concert season, even if a great many people answered the question in the affirmative, because their expressed desire might not often translate into future attendance.

The free-floating nature of subjective measures has brought their collection by U.S. agencies into question (Comptroller General 1978; Peterson 1980; Meeks 1980), and the few established U.S. Government statistical series which now regularly collect subjective measures are under review (OFSPS 1978). Methods have been devised to more accurately measure the attendance impact of subjective indicators. For example, subjective measures may be incorporated into activity inventories. This approach will be summarized in the following section on focused subjective questions.

B. Focused Questions

"Positive" responses, which indicate a willingness to attend future events, are more likely to be translated into future attendance if said by persons who have responded

affirmatively to a number of prior questions about time or money spent which anchor the subjective response in past behavior. Also persons who already enjoy an art form via a mass medium are more likely to follow up on their expressed desires to attend live performances.

To do this, focused subjective measures can be incorporated into leisure activity inventories. Four different examples will be drawn from recent and projected activity inventories to illustrate the methods of anchoring subjective responses.

1. Anchoring in prior behavior: The expressed desire to attend concerts takes on more credence if stated by persons who already attend concerts. One problem with relying on prior attendance to validate the expressed desire to attend, however, is that prior concert attendance may have been limited by the lack of concerts to attend. But concert attendance is not the only way of expressing an active interest. An activity inventory currently in the development state asks respondents about involvement in the performing arts via television, and, where appropriate, via radio and records as well. An expressed desire to attend live performances can be given greater credence when stated by persons who already enjoy the art form in one or more of these other ways. In this way the stated desire to increase arts activity can be evaluated in terms of prior behavior.

2. The reality of barriers: Surveys including America (1973), South (1978) and Australia (1979) asked all respondents or those wishing to increase their participation why they have not been able to do so. Collectively,

such answers which range from "not enough time" and "too expensive," to "too formal an atmosphere" and "danger in the streets" are called barriers.

Some critics doubt the efficacy of answers to such barrier questions. They suggest that responses may be little more than rationalizations or excuses, masking less acceptable reasons for non-involvement in the arts. A frequently stated barrier is "lack of time," but time constraint may be real. Lindner (1970), for example, would predict that educated persons, with middle incomes, living in urban areas with young children at home show low rates of arts participation and mention time barriers more often than do their childless counterparts. To the extent they do, "lack of time" is a genuine barrier.

Answers to this and related questions about the efficacy of reported barriers to explain rates of arts participation can be obtained from further analyses of the currently available survey data. Such an anlysis will make possible a better evaluation of the utility of the barrier question in activity inventories.

3. Manipulation of perception: There is an old adage that "what is taken to be real, is real in its consequences." Thus, people are likely to participate or not participate in the arts according to what they feel to be true about the performance situation, whether their opinions are accurate or not. Such feelings are tapped through subjective measures of perception. The Twelve Cities (1971) survey asked arts attenders and would-be

attenders a number of questions such as "what sort of clothes are appropriate for attending an arts event." "what class of people comprise most of the audience," and "what is the social atmosphere at a performing arts performance?"

The largest number of respondents said that the atmosphere is usually formal, restrained, and aloof, with an audience of rich upper-middle class people wearing dress-up clothes. True or false, this was the usual perception. Does this view keep people from attending arts performances? For marketing the arts, the key question is, would a change in perception increase or decrease audience participation?

The answer given in the report of Twelve Cities (1971), which employed a sophisticated method of statistically controlling for selected expressed attitudes, is that it depends very much on what perception is changed. What is more, the changes are not equally dramatic for all art forms. The expected changes for symphony, opera, ballet, and theater attendance are shown in Table 7.1. Within the limits of the study (that is, a sample of 24,000 attenders or would-be arts attenders, in 12 major U.S. cities in 1971), the figures suggest that a marked increase in audience could follow a change in the perceived atmosphere of the performance situation. But, of equal importance, lowering the perceived class of the attenders would have no great effect, and fostering a belief that casual clothes are acceptable or customary would reduce audiences for three of the four art forms.

Table 7.1 Estimated Audience Change by Altering Selected Characteristics Perceived

What would happen if respondents' current beliefs were changed:

	From: the atmosphere is usually formal, restrained, aloof. To: the atmosphere is usually festive, exciting, suspenseful or warm, congenial comfortable.	From: the audience is rich, upper-middle class. To: the audience is sensitive, knowledgable, or middle class.	From: dress-up clothes are customary To: any clothes from dress-up to casual are equally acceptable, or casual clothes are customary.
SYMPHONY	+13	+2	-5
OPERA	+14	0	-3
BALLET	+11	+6	-8
THEATER	+ 3	0	0

Adapted from tables on pages 46, 48 and 50 of Twelve Cities (1971).

This latter results from the fact that while some more people would be attracted by the option of wearing casual clothes, a larger number of people who currently attend would not attend under such conditions.

It is not possible to judge the accuracy of these figures because the details of the method are held as a proprietary secret by a commercial marketing firm. They are reported here simply to suggest the potential utility of this form of subjective measure. Such figures are of immediate use in marketing the arts, and if collected at regular intervals, they would also be of equal importance in tracking changes in beliefs about, and attitudes toward the arts over time.

4. Anchoring in facts: Several surveys have asked questions about government subsidy for the arts. For example, respondents may be asked whether the government should support the arts through aesthetic education, and through grants to artists and arts organizations. When answering a survey on arts participation, people may respond more positively to increased government expenditures than they would in a neutral context such as an interview on government spending on many different sorts of activities.

Australia (1979) attempts to control this by showing respondents a card depicting the per capita government expenditure for housing, education, health, industry, urban development, and culture. Then respondents are asked whether, in their opinion, expenditures on the arts and

culture are "too much, about right, or not enough." In addition, attitudes toward government subsidies of another sector, housing, are also probed, so the answer about arts can be placed in the context of an attitude to government subsidy more generally. The results of this method cannot yet be assessed because the analysis of the survey has not yet been published.

These four sorts of questions suggest ways in which focused subjective questions can be used as part of regularly repeated arts activity inventories. Nonetheless, this technique of imbedding questions in an activity inventory is not the most effective way of thoroughly probing the motivations for arts participation. This can be done more systematically in special-purpose marketing studies focused on particular market areas.

C. Quality of Life Measures

Some researchers take subjective measures at face value. That is, they take people's evalutions of how they feel as valid indicators, meaningful in themselves. Two groups of researchers at the University of Michigan Institute for Social Research have taken the lead in this line of inquiry. See Andrews and Withey (1976) and Campbell et al (1976) for the details of the alternative means of developing measures of subjective quality of life.[1]

Both of these subjective quality of life approaches ask how satisfied respondents feel with their lot in general

and how satisfied they feel with various aspects of their lives. As measured in these studies, the arts and aesthetic experiences do not contribute greatly to the perceived overall quality of life. On this point, see especially Andrews and Withey (1976), and Andrews et al (1979; 1980) and Campbell et al (1976). Before these results are accepted, however, there are several factors that should be taken into account. First, the aesthetic realm may contribute little because it was not well measured. This seems possible because the studies focus more on "bread and butter" factors such as health, housing, safety, income, and the like. Second, the way subjective factors have been measured is open to question in the judgment of a number of critics. They argue that the measures, as currently used, do not adequately measure subjective "satisfaction," and that a measure of "satisfaction" is not all that is needed to measure subjective quality of life.

As noted in Section B of this chapter, several sorts of focused subjective measures have been effectively incorporated into activity inventories described in Section A of Chapter 5.

Note to CHAPTER SEVEN

1. The operationalization of quality of life by subjective measures should not be confused with the work of diverse other researchers who define quality of life in terms of objective measures of one sort or another. Component measures of objective quality of life range from infant mortality and

urban population density to the number of cultural institutions and the number of employed artists. Examples of objective quality of life measures are provided by Harbison et al (1979), Carnahan et al (1976), Liu (1975), Terleckyj (1975), Gerson (1976), Mukerjee et al (1979), Perlin (1979), and Brorson et al (1979).

CHAPTER EIGHT: WORKS

Chapters 5, 6, and 7, on time, money, and subjective measures respectively, have dealt with social statistics of arts and cultural consumption. Here, the products of artistic activity, including performances, recitals, paintings, constructions, recording, fabrications, written works, etc., are considered. For the sake of convenience, these creative efforts will be called by the single term "works."

More than in the three preceding chapters, this one will point to a wide range of more or less prospectful data sources and measurement techniques rather than focus on a few well established measures. This is because such measures do not exist. There is not even a generally agreed upon scheme within which to organize the diverse indices that do exist (Douglas and Isherwood 1979).

A way to do this which fits the concern with culture indicators is to identify works as the tangible record of a communication process measured at three points: creation, dissemination, and inculcation. The three sections of the chapter which follow identify respectively measures of new works, measures of the dissemination of works, and measures of appreciation--that is, what people know or learn of the arts.

A. Creation

How many new works have been created within a given period of time--ordinarily a year? Annual rates of creation

are more easily measured in some art forms than in others.

New literary, musical, theatrical, film, and creative television works are copyrighted, so measures of the rate of creation can be tracked year by year using the files of the U.S. Copyright Office. These provide an accurate measure of American works created for distribution and consumption. What is more, the measures can be constructed for earlier years using Copyright Office files as well. The information on file identifies authorship and just sufficient information to uniquely identify the work. The Copyright Office does not classify works into genres, so considerable effort and care will be required to establish coherent genre-categories by which to classify new works.

New dance compositions present a different measurement problem because these are not registered at the Copyright Office. Unlike new musical compositions, which may be written but not performed, dance compositions do not "exist" until they are danced, so it is possible to get figures on new dance works from dance company files.

It would be far more difficult to get meaningful measures of the rate of creation in any of the visual or craft arts. There is no register of new works in these fields, and there is little likelihood of ones developing because of the great number of individual creative persons who work alone for the most part, and who typically produce many works a year. The state of California gives visual artists rights to royalty payments when their works are resold, and similar legislation has been proposed at the national level, but neither system

includes a registry of works which could be the basis of easily counting the numbers of new productions (Weil 1978, 1980).

New stagings of older works of theater and musical theater might be considered new works and measured as a separate category. This renewing process is especially important in opera where few new works are created each year, but new productions provide creative thrust in the genre. The information on opera can easily be obtained because the producing companies are few, and experts would agree on what is and what is not a new production. The problem is more difficult for the case of theater, both because there are many more companies, and because it is less easy to unambiguously identify a new interpretation from a stock revival.

New mechanical recordings of established compositions can also be considered a type of new work. Information on new recordings can be readily obtained from the annual Schwann catalogue. Beside learning the total number of works recorded, it would be possible to track the composer, genre, orchestra, featured artist, country of origin and similar items of information. The February 1980 Symphony News provides some information on the 1979 Schwann "new listings." A total of 8,690 new listings were added to the Schwann Record and Tape Guide in 1979, a decrease from the 1978 total of 10,557. Of the the 1979 total, there were 2,420 stereo classical releases. Composers appearing most

frequently in the 1979 Schwann classical music new listings include Mozart (126), Bach (85), Brahms (68), Schubert (60), Tchaikovsky (59), Hayden (56), Schumann (53), Chopin (36), and Debussy (28). For the first time ever, all of the most frequently recorded artists on new releases were conductors rather than singers or instrumentalists.

B. Dissemination

The question is, how many works of a genre, whether new or not, are widely disseminated within a given period of time? For the literary and media arts, there is an additional question, what is the content of the widely disseminated works of a given period of time?

1. Whole Works

No government agency currently keeps records on the dissemination of art works, but the major presenters and trade associations usually do. For example, all the major regional and metropolitan symphony orchestras keep records of works that they perform. It would not be difficult to aggregate these data in order to show what works of music are being disseminated to the American public. Categorization by type of music, nationality of composer, decade of composition, and type of audience could be built into the survey, making possible several sorts of analyses of interest to arts policy-makers and the research community as well.

Several researchers have made a start at this sort of dissemination study. The work with the greatest

historical depth is Muellers' study of the performed repertoire of 27 major American symphony orchestras. The study was first reported by John Mueller (1951) and was completed by Kate Mueller (1973). Her study covers the period from the founding of the orchestra through the 1969-70 season (1973). Martorella (1974) has made a comparable analysis of the performed repertoire of the four major U.S. opera companies. Her study covers fewer years but takes into account many more variables, including the cost of production and audience attendance.

Paul DiMaggio is currently engaged in coding repertoire data for the 1971-1979 seasons of all the member-organizations of the Theatre Communication Group. For each theatre company he is recording characteristics of the productions they present, such as playwright and type of repertoire (whether classical, contemporary, or avant-garde). He is also recording the size of the audience, financial data on the company, and the socio-economic characteristics of the community where the company is located,in order to link repertoire differences to these factors.

These three repertoire studies of symphony orchestras, opera companies, and theatre companies, suggest, but do not exhaust, the range of methods that could be used in analyzing the performed repertoire of each of the performing arts.

The dissemination of the visual arts has been measured by scholars interested in a particular creative group or in a kind of buyer within a brief historical period. Walters'

(1977) analysis of the year-to-year sales from 1870 to 1900 of paintings in the impressionist style by the Paris art dealer Durand-Ruel exemplifies both these tendencies. Her focus is on the relative importance of different sorts of buyers, such as American dealers, French nobility, French bourgeiosie, and French Jews, for impressionist paintings.

It would be possible to record the annual sales of a representative sample of American art dealers. These data would provide a record of the ebb and flow in the interest in the various genres of work. Museum purchases and special exhibitions provide two more points to measure the evolving styles in dissemination in the visual arts.

Dissemination of recorded music, television, and literary works are compiled by trade magazines or commercial pollsters. From one source or another, it is possible to measure both the number of different works currently available, and the best sellers among these. The sources for music include the Schwann catalogue and Billboard magazine. For television, sources include TV Guide and the Arbitron and Nielson program-rating services. For books, the sources of information include Books in Print and the New York Times "bestseller" list. Variety provides bestseller lists for Broadway plays and commercial movies.

2. Content Analysis

The enumeration of whole art works ignores their internal complexity. Changes in their components may

more clearly reveal developments and changes in artistic and aesthetic standards than can be shown by the enumeration of whole works.

Content analysis is a method, or more accurately, a set of methods, which can be used to open up works for more detailed enumeration. With the increasing conceptual sophistication and the rapid advances in computer design and information analysis techniques, content analysis is becoming an increasingly reliable tool for answering an ever expanding range of questions. For explanations and evaluation of the method, see Holsti (1969), Firestone (1972), Weber (1979), and Wood (1980).

This method makes possible a year-by-year tracing of the development and change in the aesthetic content of artistic works. But the content analysis method, in itself, does not provide the appropriate categories for analysis. These must be supplied by the investigator.

Each study has been made to fit the scholarly interests of a particular researcher. Although several art forms have been investigated, none of the investigators have developed a category scheme of sufficient sophistication to analyze works for their aesthetic content which could be applied to a wide range of art works.

Many analyses have focused on elements which illuminate the social or political aspects of society. For example, Kavolis (1968) has examined the European tradition of painting over the past four centuries and related this to changes in political authority patterns. Lomax (1968) has sought to

link the various different forms of musical structure to different types of social and political relationships in societies around the world. McClelland (1975) has related the levels of achievement imagery in folk tales and childrens' stories of different social groups to the economic structure of these societies. Lowenthal (1961) has shown the changing characteristics of heroes as depicted in American popular fiction over the first half of the 20th century. Finally, Back (1978) has shown the changing place of aged people in novels published from 1931 through 1970.

Other scholars have used content analysis to compare genres or to explore specific stylistic developments within a particular art form over time. For example, Martindale (1978) traces English poetry, Walker (1975) compares blues lyrics with popular song lyrics, and Butsch (1977) compares the moral imagery in the works of several novelists.

The work of George Gerbner and his associates at the Annenberg School of Communication of the University of Pennsylvania is the longest continuing program of content analysis. Gerbner's research has focused on television, on the grounds that more people spend more of their time exposed to TV than to any other single form of communication. Although his concern has not been with the aesthetic component of works, his research illustrates the utility of the method of content analysis.

Since 1969, Gerbner has scored selected sorts of actions depicted during prime-time and childrens' programs. He has also observed the types of interactions identified

by sex, age, and ethnicity. Putting these elements together, he can trace the evolving television image of society from year to year (Gerbner 1970, 1973; Gerbner et al 1979).

C. Appreciation

Having reviewed measures of the creation and dissemination of works, the question of how works are appreciated remains to be discussed. How well do the American people understand the arts, and is this changing from year to year? There are at least three ways of answering these questions.

One way is to ask people to identify artists or art works. Such questions identify a respondent's knowledge about the arts and are important on the presumption that an understanding and knowledge about the arts is necessary for aesthetic appreciation. The second way is to ask people to make aesthetic judgments about visual, musical, and literary works which are presented to them. A third way to gauge aesthetic skill is to infer it from the creative efforts that respondents give in a test situation.

Numerous examples of these approaches can be found in the research literature, but until recently all of the work has been focused on comparing the arts knowledge or aesthetic sophistication of one group of people with that of another (Beardsley 1973). The extensive research work summarized by Child (1964) exemplifies this comparative thrust. Researchers evaluated the aesthetic evaluations made by artists, craftsmen, and non-artists in both western

and non-western societies to learn the degree to which aesthetic discrimination is culturally learned rather than distributed randomly throughout the population of all these societies. These researchers made no attempt to study change over time.

Occasional Roper polls, beginning in 1952, are the only repeated measures on a sample of the U.S. adult population which have been made over any great length of time. These polls ask respondents to identify several famous authors, composers, painters, and works of art, and provide only a very crude measure of aesthetic sophistication (Wright, et al, 1975).

National Assessment

With money from the Department of Education, and with private foundation support, the Education Commission of the States began a systematic national assessment of educational progress in 1969. The Commission has developed tests in eight fields: science, math, social studies, citizenship, writing, literature, art (visual arts), and music. The set of tests on writing deals primarily with writing in every-day discourse, but does include a section on aesthetic creation. Three other sets of tests, those dealing with arts and music, are of central interest here.

National assessments have been made twice in the decade in each of the four fields relating to aesthetic skills. They have been administered to nine-, thirteen-, and seventeen-year olds, while the music and literary

assessments have sampled 26- to 35-year olds as well. Sample sizes have varied, but all are over 20,000 cases apiece. The assessments of music, literature, and the visual arts cover three areas: knowledge, performance, and consumer activity of the respondent. There are questions on the respondent's knowledge of great creators, notable works, and distinctive genres. There are exercises to gauge the respondent's ability to recognize aesthetic distinctions and to create small works. Finally, there are questions about the respondent's aesthetic preferences and activity as a consumer.

The publications which have come from the Commission to date have focused on comparisons among the various categories of respondents within each of the assessments. On this point see NAEP (1977). Table 8.1 provides a good example of the sorts of data currently available. The table shows the average achievement of 17-year olds by geographic region and by the education of the respondents' parents on each of the eight tests.

Information on changes in knowledge and changes in aesthetic sophistication from the first assessment to the second have not yet been published but are in the works.

* * *

While Gerbner (1970, 1973) and Rosengren (1976, 1980) identify the content analysis of works as the means of producing culture indicators, a number of other approaches to obtaining indicators from works have been identified and reviewed in this chapter. Academic researchers and

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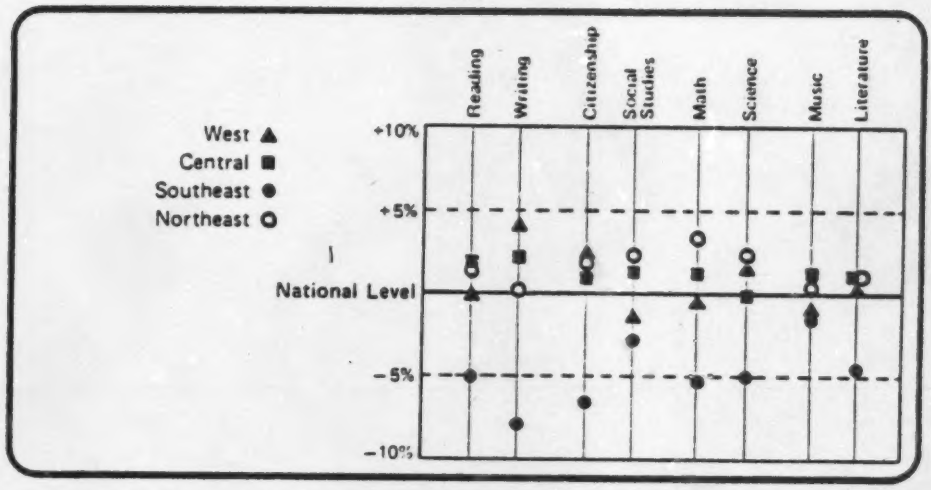
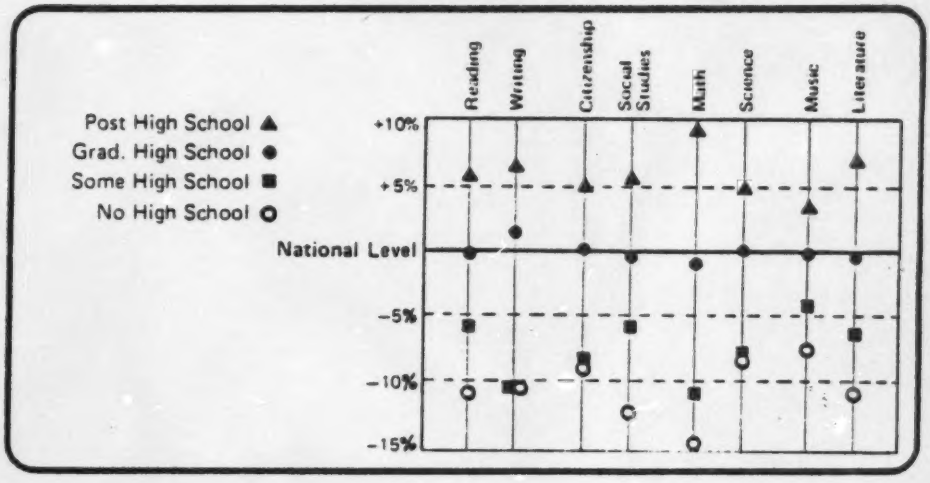
8.12

Table 8.1



Typical educational achievement of 17-year-olds by region



Typical educational achievement of 17 year olds by parental education

trade associations have taken the lead in most of these. Steps to make these efforts more relevant to government information gathering, policy and planning are discussed in the accompanying set of recommendations.

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